

# SOLID WASTE MANAGEMENT PLAN for COUNTY OF SANTA CLARA

1989 REVISION

INSTITUTE OF GOVERNMENTAL  
STUDIES LIBRARY

NOV 24 1993

UNIVERSITY OF CALIFORNIA









# SOLID WASTE MANAGEMENT PLAN

for

## SANTA CLARA COUNTY

### 1989 PLAN REVISION

May 1990

*Printed on recycled paper*

Prepared by

Santa Clara County Department of Planning and Development  
Office of Toxics and Solid Waste Management  
Solid Waste Program

1735 North First Street, Suite 275  
San Jose, CA 95112

408/441-1198



Digitized by the Internet Archive  
in 2025 with funding from  
State of California and California State Library

<https://archive.org/details/C124911340>



# TABLE OF CONTENTS

---

	PAGE
Table of Contents .....	i
List of Figures .....	v

## CHAPTER

### I. EXECUTIVE SUMMARY

Introduction .....	I-1
1989 Plan Revision Process .....	I-1
New Legislative Mandate .....	I-2
The 1989 Revision: Overview of Elements .....	I-3
Storage and Collection .....	I-3
Disposal .....	I-4
Resource Recovery .....	I-4
Other Wastes .....	I-6
Enforcement .....	I-7
Plan Administration .....	I-8

### II. GOALS, POLICIES & IMPLEMENTATION MEASURES

Introduction .....	II-1
Countywide Goals .....	II-1
Policies and Implementation Measures, Short Term .....	II-2
Policies and Implementation Measures, Mid Term .....	II-20
Policies and Implementation Measures, Long Term .....	II-20

### III. INTRODUCTION

Overview .....	III-1
Regional Characteristics .....	III-1
Topography .....	III-1
Geology .....	III-3
Hydrology .....	III-3
Climate .....	III-4
Wildlife .....	III-4
Vegetation .....	III-5
Patterns of Land Use Development .....	III-5
Transportation .....	III-6
Population and Employment .....	III-6
Economy .....	III-7
Solid Waste Planning Considerations .....	III-10
Solid Waste Definitions and Classifications .....	III-11
History of Solid Waste Management in Santa Clara County ...	III-13
The Early Years .....	III-13
County Solid Waste Management Plan: 1975 to 1978 .....	III-14
Plan Implementation: 1978 to 1984 .....	III-16



The 1984 CoSWMP Revision .....	III-18
Plan Implementation: 1984 to 1989 .....	III-19
IV. STORAGE AND COLLECTION	
Storage .....	IV-1
Litter Prevention .....	IV-1
City Programs .....	IV-1
Other Litter Cleanup Activities .....	IV-4
Countywide Program .....	IV-4
Collection .....	IV-4
Collection Agreements and Permits .....	IV-7
Levels of Service .....	IV-7
Collection Rates and Cost of Collection .....	IV-9
Collection Vehicles .....	IV-11
Haul Routes .....	IV-11
V. DISPOSAL AND FACILITIES	
Disposal .....	V-1
Disposal in Santa Clara County .....	V-1
Existing Disposal Capacity .....	V-1
Future Considerations .....	V-6
Solid Waste Facilities .....	V-10
Waste Sources .....	V-10
Facility Definitions and Classifications .....	V-11
Existing Disposal Facilities .....	V-12
Non-Permitted Existing Disposal Facilities .....	V-32
Existing Transfer Stations .....	V-36
Proposed Solid Waste Facilities .....	V-38
Inactive Solid Waste Facility Sites .....	V-40
VI. RESOURCE RECOVERY	
Overview .....	VI-1
History of Resource Recovery in Santa Clara County .....	VI-1
Recoverable Materials in the County Waste Stream .....	VI-2
Percentage of Residential versus Commercial/Industrial Waste By Landfill .....	VI-3
Waste Stream Reduction Goals .....	VI-4
Computing Waste Stream Percentage Recycled .....	VI-5
Measuring Progress Toward Goal Achievement .....	VI-7
Waste Stream Reduction/Recycling Estimate: FY 87-88 ...	VI-10
20% Recycling Goal: Estimate of Achievement .....	VI-11
Existing Recycling Programs .....	VI-11
Community Curbside and Drop-Off Recycling Program ...	VI-11
Composting .....	VI-15
Wood Waste Recovery .....	VI-15
Recycling and Salvaging at Transfer Stations .....	VI-16
Salvaging At Landfills .....	VI-16
Commercial/Industrial Recycling .....	VI-17
Current Markets for Recovered Materials .....	VI-21



Program Expansions and Future Plans .....	VI-22
New Facilities .....	VI-22
Curbside and Drop-off: Expansions and New Programs ...	VI-24
Commercial/Industrial Expansions .....	VI-26
Future Composting Plans .....	VI-27
Future Markets for Recovered Materials .....	VI-28
Landfill Gas Recovery .....	VI-29
Waste-to-Energy .....	VI-31
Waste-to-Energy: The Future .....	VI-32
 VII. OTHER WASTE	
Overview .....	VII-1
Hazardous Waste .....	VII-1
Household Hazardous Waste .....	VII-2
Asbestos .....	VII-9
Infectious/Medical Waste .....	VII-11
Designated Wastes .....	VII-16
Special Wastes .....	VII-17
Abandoned Vehicles .....	VII-17
Agricultural Wastes .....	VII-18
Bulky Materials .....	VII-19
Dead Animals .....	VII-19
Food Processing Waste .....	VII-20
Grease Interceptor Waste .....	VII-20
Septic Tank Pumpings .....	VII-22
Sewage Sludges .....	VII-22
Street Sweepings and Catchbasin Debris .....	VII-24
Used Tires .....	VII-24
 VIII. ENFORCEMENT	
Enforcement Agencies .....	VIII-1
Enforcement in Santa Clara County .....	VIII-1
Local Enforcement Agencies .....	VIII-1
Local Enforcement Plans .....	VIII-3
Financing Local Enforcement Programs .....	VIII-3
Recent Regulatory Changes .....	VIII-5
Solid Waste Assessment Tests .....	VIII-5
Closure And Post Closure Requirements .....	VIII-6
Ground Water Protection .....	VIII-6
RWQCB Requirements .....	VIII-6
Load Checking Programs .....	VIII-7
The Future of Enforcement .....	VIII-9
 IX. PLAN ADMINISTRATION	
Administrative Structure .....	IX-1
Program Implementation .....	IX-1
Policy Development Process .....	IX-3
Subregional Solid Waste Management .....	IX-6
Administrative Alternatives .....	IX-7



Enforcement Responsibilities .....	IX-10
Economic Feasibility .....	IX-10
Public Participation and Information .....	IX-10
County Public Information Programs .....	IX-11
City Public Information Programs .....	IX-11
Contingency Planning .....	IX-11
Labor Disputes .....	IX-12
Fuel Shortages .....	IX-12
Plant And/Or Equipment Breakdown .....	IX-13
Highway or Street Blockage .....	IX-13
Unexpected Facility Closure or Shutdown .....	IX-13
Natural And/Or Man-Made Disaster .....	IX-13

## APPENDICES

A. List of Committees .....	A-1
Intergovernmental Council (IGC) .....	A-1
IGC Solid Waste Committee (SWC) .....	A-2
Technical Advisory Committee (TAC) .....	A-2
B. List of Independent Recycling Firms .....	B-1
C. Proposed Negative Declaration .....	C-1



## LIST OF FIGURES

---

FIGURE	PAGE
III.1 Santa Clara County: Regional Setting (map) .....	III-2
III.2 Population and Number of Jobs in Santa Clara County .....	III-8
III.3 Number of Households and Persons Per Household in Santa Clara County .....	III-9
IV.1 California Code of Regulations, Title 14, Chapter 3 .....	IV-2
IV.2 Storage Ordinances .....	IV-3
IV.3 Municipal Litter Cleanup and Control Activities .....	IV-5
IV.4 California Code of Regulations, Title 14, Chapter 3, Article 5. ...	IV-6
IV-5 Typical Residential Collection Service .....	IV-8
IV-6 Typical Commercial And Industrial Bin Service .....	IV-10
IV-7 Santa Clara County-Major Haul Routes (map) .....	IV-12
V.1 Disposal Capacity .....	V-3
V.2 Total Amount Landfilled (1987-2019)-Based on a 1.1 Percent Growth Rate .....	V-5
V.3 Current Disposal Contracts .....	V-7
V.4 Santa Clara County-Landfill Locations (map) .....	V-13
V.5 Guadalupe Landfill (map) .....	V-15
V.6 Kirby Canyon Landfill (map) .....	V-17
V.7 Mountain View Landfill (map) .....	V-19
V.8 Newby Island Landfill (map) .....	V-21
V.9 Pacheco Pass Landfill (map) .....	V-23
V.10 Palo Alto Landfill (map) .....	V-25
V.11 All Purpose Landfill (map) .....	V-27
V.12 Sunnyvale Landfill (map) .....	V-29
V.13 Zanker Road Landfill (map) .....	V-31
V.14 Owens-Corning Landfill (map) .....	V-33
V.15 Summary Landfill Information .....	V-34
VI.1 Waste Stream Composition: FY 87-88 .....	VI-3
VI.2 Formula Calculations: Example .....	VI-8
VI.3 Curbside and Drop-off Recycling: Quantities FY 87-88 .....	VI-12
VI.4 Summary of City-Supported Curbside and Drop-off Programs Fiscal Year 1987-88 .....	VI-13
VI.5 Estimated Annual Revenue Loss from Curbside Scavenging ...	VI-14
VI.6 Status of Recycling Programs by Jurisdiction .....	VI-20
VI.7 Estimated Quantities to be Recovered at New/Expanded Facilities .....	VI-23
VI.8 Estimated Quantities to be Recovered by New Curbside Programs .....	VI-26
VI.9 Summary of Landfill Gas Recovery Systems .....	VI-30
VI.10 Waste to Energy Studies in Santa Clara County, 1968 to Present .....	VI-33



VII.1	Results of Household Hazardous Wastes Survey .....	VII-3
VII.2	Household Hazardous Waste Programs Contact List .....	VII-8
VII.3	Disposal of Asbestos Wastes Generated in Santa Clara County During 1987.....	VII-10
VII.4	Generators of Infectious Wastes .....	VII-14
VIII.1	State, Regional, and Local Regulatory Agencies .....	VIII-2
VIII.2	LEAs for Non-Health Related Standards at Facilities in Santa Clara County .....	VIII-4
VIII.3	Summary of Landfill Load Checking Programs.....	VIII-8
IX.1	Countywide Solid Waste Planning Structure .....	IX-2
IX.2	Subregional Areas-1989 (map).....	IX-8



# **CHAPTER I**

## **EXECUTIVE SUMMARY**







## INTRODUCTION

---

The 1989 Revision of the Santa Clara County Solid Waste Management Plan (CoSWMP) describes the countywide solid waste management system and sets forth goals, policies, and an implementation plan for short, medium, and long-term planning horizons. The Plan was developed to meet California Government Code (Section 66780 et. seq.) requirements.

During the preparation of this Plan Revision, State law was changed. The new legislative mandates are summarized below. Additional legislative changes are under discussion and are expected to be adopted during 1990.

Although legislative requirements have changed and are continuing to change, Santa Clara County jurisdictions have proceeded with completion of the Plan Revision and are cooperating in plans to meet new requirements. The Plan Revision will

- Provide a local policy document to guide solid waste management in the county;
- Formalize the commitment of all cities and the County to the direction developed in the Plan; and
- Move the county forward towards meeting specific requirements of the new law, including development of new waste reduction and recycling programs, and market development policies.

### 1989 PLAN REVISION PROCESS

Under California Government Code (repealed upon the adoption of AB 939), each county was required to prepare a CoSWMP, and to review and update it every three years. All solid waste facilities in the county were required to be included in the CoSWMP as a prerequisite to issuance of solid waste facilities permits. For permits to be valid, sites were required to remain in conformance with the CoSWMP.

In conformance with those requirements, Santa Clara County's Plan was evaluated by County staff to determine whether the Plan still adequately addressed county needs and met State requirements. The 1988 Triennial Plan Review Report, prepared by staff and submitted to the California Waste Management Board in August 1988, concluded that all elements of the existing Plan needed revision.

The first County Plan was prepared in 1975, adopted in 1976, and modified over a period of more than ten years. The resulting documents constituted the Santa Clara CoSWMP. CoSWMP components included

- The 1975 Metcalf and Eddy Report,

- The 1976 Plan Addendum,
- The 1978 Administrative Structure Amendment,
- The 1984 Plan Revision, and
- Five Plan Amendments.

The 1989 Plan Revision has been developed to update and reformat all sections of the previous Plan, add new elements to address county needs, and provide a single, consistent and reliable document to serve as a basis for developing future policies and programs.

Presentation of all elements in a single document resolves the difficulties associated with the differences in format and approach among the various components of the previous Plan, and facilitates future review and discussion. This Revision will also maintain the established countywide consensus-building process to implement the goals and policies described in Chapter II.

The 1989 Revision was developed by the Santa Clara County Solid Waste Program staff, with policy direction provided by the Solid Waste Committee (SWC) of the Intergovernmental Council. The SWC consists of nine elected officials, each representing a different geographic area of the county and/or point of view. The Solid Waste Technical Advisory Committee (TAC) provided advice and assistance to the SWC and County staff. The TAC includes solid waste management professionals from each jurisdiction (19 members) and the private solid waste industry (4 members), as well as representatives of interested community organizations (12 members).

## NEW LEGISLATIVE MANDATE

The California Integrated Waste Management Act of 1989, AB 939, became law on January 1, 1990. Although this Plan Revision was completed prior to the adoption of AB 939, the implementation program specified by this Plan Revision is substantially consistent with the major purposes of the Act.

The law shifts the statewide planning focus from development of *landfill capacity* to development and implementation of *alternatives to landfill disposal*. As described in this Plan Revision, Santa Clara County has already begun to develop and emphasize alternatives to landfill disposal of wastes.

The law requires each county in the state to convene a Source Reduction and Recycling Task Force. This Task Force assists in coordinating development of the Source Reduction and Recycling elements also required in the legislation. The role of the new Task Force is consistent with the solid waste decision making structure already established to guide waste-management policy in Santa Clara County, as described Chapter IX of this Plan Revision.



Under AB 939, cities and counties are required to develop source reduction and recycling programs to reduce waste by 25 percent by 1995 and 50 percent by the year 2000. The 25 percent goal is consistent with the goal established in this Plan Revision. However, the new mandated goal of 25 percent reduction applies separately to each jurisdiction of Santa Clara County, and the goal established in this Plan Revision is a countywide goal.

The "integrated waste management hierarchy" established in the new law specifies that waste management efforts shall focus on

- Source reduction, to reduce the generation of wastes;
- Recycling and composting of materials;
- Transformation of wastes, such as waste-to-energy processes; and
- Landfilling, as a last resort, for management of the remaining materials.

This Plan Revision applies the hierarchy as a planning tool in all areas of waste management and will assist Santa Clara County jurisdictions in complying with the requirements of AB 939.

## **THE 1989 REVISION: OVERVIEW OF ELEMENTS**

---

### **STORAGE AND COLLECTION**

Waste collection services in Santa Clara County are generally provided by private companies, regulated either by collection agreements or permits. Factors influencing collection rates include type and frequency of service, degree of effort required to provide the service, ownership and proximity of the disposal site, size of the commercial/industrial base in the community, and taxes and surcharges for funding various regulatory and planning programs.

This Plan contains policies to ensure the continued provision of adequate collection services to all residents and commercial/industrial establishments located within the county; and continued conformance of countywide collection services with local, State, and federal minimum standards.

Chapter IV is the Storage and Collection element of the Plan, which describes storage and collection systems for non-hazardous waste. It also provides listings of municipal storage ordinances, descriptions of litter control activities, and information on collection services.

## DISPOSAL

As of July 1, 1988, Santa Clara County had approximately 53 million tons or 74 million cubic yards of available landfill capacity. Based on the current rate of fill of 1.8 million tons per year, this capacity could last approximately 29 years. Factoring in a 1.1 percent annual growth rate<sup>1</sup>, capacity life drops to 24 years. Achieving the countywide goal of reducing the waste stream by 25 percent by 1995 will further extend capacity life to about 32 years (assuming a 1.1 percent growth rate and current waste stream reduction rate of 16 percent).

This Revision includes a policy of maintaining 30 years of ongoing disposal capacity. This objective is to be achieved by applying an "integrated waste management hierarchy" (Source Reduction, Recycling and Composting, Transformation, and Landfilling) in all areas of waste management countywide. Using the Hierarchy as a planning tool, this Plan Revision's workprogram will explore the feasibility of expanding the planning horizon to 50 years, and establishing a countywide Integrated Waste Management goal.

Santa Clara County has nine fully-permitted nonhazardous solid waste landfills. Four of these are publicly owned: Palo Alto, Mountain View, Sunnyvale and Santa Clara; the others are privately owned. Nearly all of the future landfill capacity lies in privately-owned sites.

Chapter V is the disposal element of the CoSWMP, containing information on existing and long-term disposal capacity, existing disposal arrangements and long-term disposal contracts, planning for future facilities, descriptions of existing and proposed solid waste facilities, and brief descriptions of known inactive landfill sites.

## RESOURCE RECOVERY

Under the former law, all CoSWMP revisions occurring after January 1, 1988 were required to include a plan to reduce solid waste, including establishment of a 20 percent recycling goal and identification of actions that the County would take to achieve the goal. Santa Clara County expected to exceed the 20 percent goal.

As discussed above, however, the new legislation requires waste reduction of 25 percent by 1995 by each city and county unincorporated area. Goals established in the Plan Revision are consistent with that more aggressive goal and will assist Santa Clara County jurisdictions in meeting the 25 percent goal.

---

<sup>1</sup>Association of Bay Area Governments (ABAG) projection of population growth.



- A 1988 amendment to the CoSWMP requires that all jurisdictions in the county report annually to the IGC on programs and plans to reduce the amount of waste disposed of in landfills by 25 percent by 1995.
- A formula to measure waste was developed for this Revision. It will estimate the percent of the total waste stream that has been diverted from landfill disposal in a given fiscal year. A preliminary application of the formula to Fiscal 1987-88 indicates a countywide waste stream reduction rate of approximately 16 percent. The "baseline year" to measure waste stream reduction will be Fiscal year 1989-90.
- This plan includes policies intended to increase resource recovery. The development of a model procurement plan to increase the demand for products made from recovered materials is encouraged. The creation of a database containing waste stream information will be used to measure success of reduction programs and implement new programs. Also, the development of local industries that would use recovered materials as a feedstock would reduce the amount of material entering the waste stream. All resource recovery policies and implementation measures are geared toward achieving the local 25 percent waste stream reduction goal by 1995.

By mid-1990, thirteen cities and some portions of the unincorporated area of the county will have curbside programs in operation. Programs are being considered in the remaining two cities and additional portions of the unincorporated area. Several jurisdictions have pilot programs for collection of recyclables at multi-family dwellings.

Yard waste composting presents a significant opportunity to reduce the volume of wastes landfilled. Palo Alto operates a drop-off municipal composting program. San Jose's pilot program for curbside collection and composting of yard waste serves 7,500 homes.

In the near future, the opening of the Recyclery, the Sunnyvale Materials Recovery and Transfer Station, and the construction of a 70,000 square foot recovery facility at Zanker Road Resource Management will increase the amount of commercial/industrial recycling.

Chapter VI is the Resource Recovery element. It contains information on recycling and waste reduction goals; a methodology for measuring waste stream reduction; descriptions of existing recycling and waste reduction activities in the county; and descriptions of planned programs and program expansions contributing to attainment of the countywide goal.

## OTHER WASTES

Other wastes are defined as wastes which, due to certain characteristics require special handling, treatment, and/or disposal methods. Such wastes are generally not approved for disposal in Class III landfills.

Chapter VII discusses all other waste generated in Santa Clara County, including hazardous, designated, and special wastes. Issues involving disposal of each of these waste types are summarized below.

### Hazardous Waste

As defined in Section 66300 of the California Code of Regulations, hazardous waste is any waste which consists of or contains toxic and/or other substances which could significantly impair the quality of the usable waters of the state. This category includes but is not limited to solvents, chemicals, pesticides, fertilizers, acids, and untreated infectious (medical) wastes.

In 1986, local governments were given a choice of including hazardous waste management in the CoSWMP, or developing a separate plan. Santa Clara County chose the latter course, and the Santa Clara County Hazardous Waste Management Plan (CHWMP) is currently under development.

Hazardous waste is not included in the code definition of solid waste, though the law does require that problems it may create at solid waste landfills be addressed in the CoSWMP. One of the objectives of this Revision is to determine the extent of the relationship between solid and hazardous waste management programs, especially in the areas of handling hazardous waste found at solid waste facilities, managing asbestos, and collecting infectious wastes from small-quantity generators.

### Household Hazardous Waste

Currently, local household hazardous waste drop off events are scheduled periodically by cities. The County Office of Toxics and Solid Waste Management is working on a proposal for the development of a countywide household hazardous materials program, which could provide permanent, on-going collection sites and a countywide public information program.

### Designated Wastes

Designated wastes are specific hazardous and nonhazardous wastes which cannot be disposed of at Class III municipal solid waste facilities. Designated waste includes a variety of industrial and manufacturing wastes, non-hazardous contaminated soils, and some soaps and detergents.



At present, there are no Class I or II sites in Santa Clara County, so designated wastes must be shipped to out-of-county sites. A policy to seek adequate means of disposal within the county for designated wastes is included in this Plan.

### **Special Wastes**

Special wastes are nonhazardous solid wastes which require collection, processing, and disposal procedures which differ from those used for municipal solid wastes. Examples include abandoned vehicles, grease interceptor wastes, septic tank pumpings, sewage sludge, and tires.

Chapter VII discusses all "Other Waste" generated in Santa Clara County, including hazardous, designated and special wastes.

## **ENFORCEMENT**

In Santa Clara County, several State and local agencies have solid waste oversight and enforcement responsibilities:

- California Waste Management Board (CWMB)
- State Department of Conservation
- State Department of Health Services
- Regional Water Quality Control Boards (RWQCBs)
- Air Quality Management Districts
- Local Land Use Authorities -- Local Planning Agencies
- 14 Local Enforcement Agencies (LEAs)
- County Health Department

The LEAs have primary responsibility for enforcing State and local standards for solid waste disposal.

In 1977, each of the fifteen cities in Santa Clara County was designated as LEA for non-health-related standards within its own borders. The County Health Department enforces health-related standards throughout the county and non-health-related standards in the unincorporated areas of the county. In 1988, the cities of Mountain View and Sunnyvale transferred their enforcement responsibilities to the County Health Department, reducing the number of LEAs in the county from 16 to 14. The desirability of further centralizing the LEA system will be studied during the life of this Revision.

The expansion of the County Solid Waste Enforcement Program is a major step in strengthening the LEA structure in Santa Clara County. An administrative fee of \$0.16 per ton of solid waste landfilled in the county, approved in 1988, will support a more comprehensive enforcement program, including more staff and staff training.

Chapter VIII is the Enforcement Element of the 1989 Revision. It contains a description of the solid waste enforcement system in Santa Clara County, delineates the responsibilities and interactions of the various agencies, describes recent regulatory changes, the maintenance of groundwater quality and load checking programs.

## PLAN ADMINISTRATION

Santa Clara County's Plan is administered by the County Solid Waste Program of the Planning and Development Department, as advised by the Intergovernmental Council (IGC). Solid waste management issues are referred to the Solid Waste Committee (SWC), a subcommittee of the IGC. The Technical Advisory Committee (TAC) in turn advises the SWC. The County Solid Waste Program staff is responsible for the on-going administration of the solid waste management plan and the plan budget.

Plan activities are supported by a fee levied on each ton of solid waste landfilled in the county. In November, 1988, the fee was increased from \$0.07 to \$0.15 a ton, providing about \$275,000 annually to be used for data gathering, evaluation and dissemination; facilitation and advocacy for identified solid waste concerns and adopted policy; and Plan preparation and implementation.

The 1975 CoSWMP divided the county into four subregions for purposes of solid waste management. In 1988, the existing Plan was amended to combine the North and Central Subregions, reducing the number of subregions to three. During the life of the 1989 Revision, the Subregional Policy will be further evaluated to determine whether it should be maintained as it is, modified, or eliminated.

The process for amending the CoSWMP in Santa Clara County is cumbersome. Though it assures consensus on highly complex or controversial issues, even the simplest amendment can take nine months or more to complete. The feasibility of instituting a joint powers body, or empowering an existing body (such as the IGC) with decision-making authority over non-contested Plan Amendments will be investigated during the life of this Revision.

Chapter IX is the Plan Administration element. It describes solid waste management in the county, summarizes the Subregional Policy, defines future administrative alternatives, and describes the roles of staff and committees in the present administrative structure. Brief discussions of contingency planning and public information activities are also included.



**CHAPTER II**

**GOALS**  
**POLICIES**  
**IMPLEMENTATION MEASURES**





## INTRODUCTION

---

Chapter II contains the countywide goals, policies, and objectives of Solid Waste Management in Santa Clara County.

Short-term policies and implementation measures (1990-1994) are organized according to subject, as discussed in the chapters of this Plan Revision:

Storage and Collection, Disposal and Facilities, Resource Recovery,  
Other Wastes, Enforcement, and Plan Administration.

Implementation measures to support short-term policies appear under the relevant policy; implementors and completion dates are indicated. Some measures represent continuation of an existing program; some are new programs recommended in this Plan Revision. The following abbreviations and acronyms are used to identify implementors of each measure:

Intergovernmental Council	IGC
Solid Waste Committee	SWC
Technical Advisory Committee	TAC
County Environmental Health	CEH
County Solid Waste Program	CSWP
Local Enforcement Agency	LEA
County Tanner Program	CTP
Regional Water Quality Control Board	RWQCB
California Waste Management Board	CWMB

In general, mid-term (1994-1998) tasks represent a continuation or updating of policies and programs undertaken in the short term.

Long-term (1998-2008) actions are more general, because long-term requirements will be determined by actions taken and decisions made in the short and midterm, and by technological advances.

## COUNTYWIDE GOALS

---

1. Minimize the effects of solid wastes on the environment. Advocate the protection of public health in all aspects of solid waste management.
2. Achieve a high level of public awareness of and involvement in solid waste issues.
3. Reduce the quantity of waste disposed of in landfills within the county.
4. Encourage expansion of existing markets and development of new markets for recovered materials within the County and the region.

5. Support and encourage actions to ensure the continued availability of long-term disposal capacity for every jurisdiction within the county.
6. Seek cooperation and coordination between all State, regional, and local agencies involved in solid waste issues.
7. Seek means to coordinate solid waste and hazardous waste management programs as mandated by the State.
8. Continue to monitor State and local legislation dealing with solid waste issues affecting Santa Clara County and encourage countywide compliance with State and Federal requirements.
9. Evaluate new solid waste management technologies, and encourage the use of effective methods and technologies in Santa Clara County.

## **POLICIES AND IMPLEMENTATION MEASURES**

---

*Short Term: 1990-1994*

### **STORAGE AND COLLECTION (Chapter IV)**

**POLICY 1:** Seek conformance of storage practices throughout the county to Federal, State, and local regulations and minimum standards.

- a) Collect all city and County ordinance codes to develop a comprehensive list that addresses solid waste storage and report to the IGC on their conformance with State and Federal regulations. Update list and analysis annually.

Implementors: Cities, CEH, CSWP

Completion Date: 1992

**POLICY 2:** Maintain adequate litter control programs based on community needs and funding capabilities.

- a) Compile a list of all litter control and clean-up programs within the county.

Implementors: Cities, County, CSWP

Completion Date: 1991



- b) Develop and maintain an information "pool" on current litter control programs (i.e., CLEAN and Keep America Beautiful), clean-up ideas and assistance programs.

Implementors: Cities, County, CSWP

Completion Date: 1990

- c) Explore funding sources for the development and maintenance of litter control programs.

Implementors: Cities, County, CSWP

Completion Date: 1994

**POLICY 3:** Seek conformance of collection practices throughout the county to current Federal, State and local regulations and minimum standards.

- a) Determine the volume of waste collected in each jurisdiction of the county.

Implementors: Cities, County, SWC, TAC, CSWP

Completion Date: 1990

- b) Collect all city and County ordinance codes to develop a list that covers waste collection and analyze the codes for conformance with State and Federal regulations. Update list and analysis annually.

Implementors: Cities, County, CEH, CSWP

Completion Date: 1991

**POLICY 4:** Advocate provision of adequate collection services to all residents, and all commercial and industrial establishments located within the county.

- a) Continue to survey commercial/industrial and residential collection rates throughout the county. Include a compilation of fees imposed on collection services, cost of operation and profit margins, and impacts resulting from service area.

Implementors: Cities, County, CSWP

Completion Date: 1993

**DISPOSAL & FACILITIES (Chapter V)**

**POLICY 5:** The burden of solid waste disposal is to be shared equitably among the communities of Santa Clara County, to the best of local abilities. Siting of solid waste management facilities should be shared, to the extent possible, among the communities of Santa Clara County. Solid waste management facilities include recycling collection centers, processing facilities, and end-use manufacturers; waste-to-energy facilities; biomass or wood waste facilities; codisposal (sludge and solid waste) facilities; and landfills. Consideration should be given to a community's past contributions and historical circumstances.

**POLICY 6:** Develop an accurate system, which conforms to State regulations, for measuring incoming wastes at all landfills.

- a) Develop common waste management definitions and incorporate into all collection and disposal contracts in the county to facilitate recycling efforts.

Implementors: Landfill Owners and Operators, TAC, CSWP

Completion Date: 1990

- b) Develop a database of conversion criteria for all solid waste facilities: yards to tons.

Implementors: Landfill Owners and Operators, TAC, CSWP, CEH

Completion Date: 1991

- c) Monitor installation of scales at all operating solid waste facilities.

Implementors: Landfill Owners and Operators, TAC, CSWP, LEAs

Completion Date: 1990

- d) Explore the feasibility of performing waste volume surveys annually at all operating landfills.

Implementors: Landfill Owners and Operators, TAC, CSWP, LEAs

Completion Date: 1991

- e) Continue to seek increased accuracy in the reporting of tonnage landfilled throughout the county.

Implementors: Landfill Owners and Operators, TAC, Cities, CEH, CSWP

Completion Date: 1992



- f) Encourage the adoption of performance standards and other innovative designs that will extend the life of existing landfill facilities.

Implementors: SWC, TAC, CEH, CSWP

Completion Date: Ongoing

**POLICY 7:** Santa Clara County recognizes the California's "integrated waste management hierarchy:" source reduction, recycling and composting, transformation, and landfilling. The hierarchy is endorsed as a planning tool and is not intended to preclude or dictate specific projects. Evaluation of specific projects will continue to occur at the local level.

**POLICY 8:** The County and cities will collectively maintain 30 years of ongoing disposal capacity and will explore means to develop up to 50 years of disposal capacity. Landfill capacity will be extended through all reasonable efforts, including, but not limited to, source reduction, recycling, composting, and transformation.

- a) Encourage all jurisdictions within Santa Clara County to acquire contracts for long-term landfill capacity.

Implementors: SWC, TAC, CSWP

Completion Date: Ongoing

- b) Identify jurisdictions which will require additional landfill capacity within ten years.

Implementors: SWC, TAC, CSWP

Completion Date: 1990

- c) Report annually on available landfill capacity, contracted landfill capacity, and needed landfill capacity.

Implementors: SWC, TAC, CSWP

Completion Date: Ongoing

- d) Study the feasibility of (1) Extending the integrated waste management planning horizon to 50 years; (2) Establishing a countywide goal for each integrated waste management component.

Implementors: IGC, SWC, TAC, CSWP

Completion Date: 1991

**POLICY 9:** Encourage protection of solid waste facilities in the county from encroaching incompatible land uses.

- a) Identify land uses compatible with solid waste facilities. Determine the potential for establishing compatible-use buffer zones around facilities.

Implementors: SWC, TAC, CSWP

Completion Date: 1990

- b) Review city and County general plans to determine whether existing solid waste facilities are protected from encroachment of incompatible land uses, as defined by State and local regulations.

Implementors: Cities, SWC, TAC, CSWP

Completion Date: 1990

- c) Encourage the amendment of city and County general plans, as needed, to ensure the continued protection of solid wastes facilities from encroachment of incompatible land uses.

Implementors: SWC, TAC, CSWP

Completion Date: 1990 and ongoing

- d) Publicize State regulations regarding protection of solid waste facilities from encroaching surrounding land uses.

Implementors: CSWP

Completion Date: 1990

**POLICY 10:** Encourage the expansion of existing landfills before the siting of new facilities.

**POLICY 11:** A countywide site assessment shall be conducted based on objective criteria pertaining to potential landfill sites and expansion capacity at current sites.

- a) Identify and evaluate existing State siting criteria. Determine need for additional local siting criteria.

Implementors: TAC, CSWP

Completion Date: 1990



- b) Identify and evaluate existing solid waste facility siting studies for areas in Santa Clara County; identify gaps in data.

Implementors: TAC, CSWP

Completion Date: 1990

- c) Determine the need for additional studies, scope of required work, party responsible, and funding source.

Implementors: TAC, CSWP

Completion Date: 1990

**POLICY 12:** Encourage compliance of all solid waste facilities located within the county with State, Federal, and local regulations.

- a) Determine if all solid waste facilities currently operating within the county have applied for or have secured all permits necessary to operate and that all the permits are current.

Implementors: Cities, CSWP, LEAs

Completion Date: 1990

- b) Maintain data on landfill compliance with closure requirements pursuant to Government Code Sections 66796 and 66799.

Implementors: LEAs

Completion Date: Ongoing

**POLICY 13:** Identify need and potential for a publicly-owned solid waste facility.

- a) Determine the degree of public ownership and involvement needed to maintain a competitive marketplace for solid waste collection and disposal.

Implementors: SWC, TAC, CSWP

Completion Date: 1993

- b) Investigate the feasibility of a countywide entity developing a publicly-owned solid waste facility.

Implementors: IGC, SWC, TAC, CSWP

Completion Date: 1994

**POLICY 14:** Importation for disposal of solid waste generated outside of the county must conform with the CoSWMP.

- a) Any parties wishing to import out-of-county wastes must first file an application to amend the CoSWMP. No waste may be imported into the county until that Plan Amendment has been fully approved. Applications will include at least the following:
- Origin and source of the waste;
  - Name and location of the solid waste disposal facility where the waste will be disposed;
  - Amount of waste (in yards and tons) to be disposed of in Santa Clara County, including the average daily amount, the average annual amount, and the total amount over the term of any applicable agreement related to the waste;
  - Composition of the waste as determined by a waste stream analysis to be developed by the applying party;
  - Description of the method to be used to screen for hazardous wastes;
  - Evaluation of the impact that the disposal of the waste in Santa Clara County will have on the countywide solid waste management system;
  - Description of all State and local permits and approvals which must be obtained before the waste can be disposed of in Santa Clara County including, but not limited to, the local land use approvals and revision or modification of any applicable Solid Waste Facilities Permit; and
  - Description of the waste reduction strategies, both in-place and planned, for reducing the amount of waste to be disposed of at the proposed facility.
- b) The applying party will be responsible for complying with the procedures associated with the California Environmental Quality Act (CEQA) and paying any and all costs or fees required by the Santa Clara County Department of Planning and Development and the local jurisdiction.
- c) Criteria to be used in evaluating importation requests will include, but not be limited to
- The impact of the imported waste on long-term landfill capacity for Santa Clara County jurisdictions; and
  - The ability of the importing jurisdiction to comply with countywide recycling policies.



- d) Develop waste importation procedures check list.

Implementors: TAC, CSWP

Completion Date: 1989

- e) Explore the issue of 'capacity-swapping' which could require an importing jurisdiction to secure disposal capacity elsewhere for jurisdictions in Santa Clara County.

Implementors: TAC, CSWP

Completion Date: 1992

## RESOURCE RECOVERY (Chapter VI)

**POLICY 15:** The countywide waste stream being disposed in landfills is to be reduced 25% by 1995.

- a) Identify new waste reduction and recycling techniques for possible implementation in Santa Clara County.

Implementors: TAC, CSWP

Completion Date: Ongoing

- b) Develop library of information and videos on state-of-the-art recycling programs of all types.

Implementors: CSWP

Completion Date: Ongoing

- c) Determine feasibility of developing a video on existing recycling programs in Santa Clara County.

Implementors: TAC

Completion Date: 1990

**POLICY 16:** Each jurisdiction in the county will report annually to the IGC on the measures it has taken in the past year to help achieve the 25% waste stream reduction goal. This data will be summarized and included in the IGC Annual Report on Solid Waste Management in Santa Clara County.

- a) Each jurisdiction in the county will prepare an Annual Waste Stream Reduction Report for the IGC Solid Waste Committee on measures taken

toward achievement of the 25% countywide waste stream reduction goal. Subjects to be covered include public and private initiatives, policies, and budgeted activities.

Implementors: SWC, TAC, CSWP

Completion Date: Annual

- b) Develop a reporting form to be distributed to all jurisdictions.

Implementors: TAC, CSWP

Completion Date: 1990

- c) Incorporate data received in the Annual Waste Stream Reduction Reports into the IGC Annual Report on Solid Waste Management in Santa Clara County.

Implementors: CSWP

Completion Date: Annual

- d) Consider expansion of the Annual Waste Stream Reduction Report to include the amount and composition of each jurisdiction's waste stream and waste reduction activities.

Implementors: SWC, TAC, CSWP

Completion Date: 1990

**POLICY 17:** Support and encourage development of a model procurement policy for adoption by the County, cities, and other public and private entities. Policy should create a demand for products made from recovered materials, and foster source reduction by requiring the purchase of materials that are reusable, repairable, and recyclable.

- a) Endorse legislation to give tax breaks and other incentives for use of recovered materials, encourage procurement of materials made of recycled materials.

Implementors: SWC, TAC, CSWP

Completion Date: Ongoing

- b) Review examples of procurement standards developed by cities, counties, and State and Federal agencies.

Implementors: TAC, CSWP

Completion Date: 1990



- c) Define types, amounts, and dollar value of materials purchased by the County, cities, and other entities which could use recycled materials; develop list of vendor's of such products.

Implementors: TAC, CSWP

Completion Date: 1990

- d) Identify, as appropriate, the level of recycled content to specify for each material. Compare cost of these products with cost of products made from virgin materials; disseminate this information to all jurisdictions in Santa Clara County.

Implementors: TAC, CSWP

Completion Date: 1990

- e) Meet with users to evaluate advantages and disadvantages associated with the use of products made wholly or partly from recovered materials.

Implementors: TAC, CSWP

Completion Date: 1991

**POLICY 18:** Develop a data base of waste stream information for use in measuring success of reduction programs and/or implementing new programs.

- a) Develop system to monitor results of the recycling programs outlined in the CoSWMP.

Implementors: TAC, CSWP

Completion Date: 1990

- b) Determine whether completing further waste composition studies and/or surveying private materials would be a cost-effective contribution to the countywide waste reduction effort.

Implementors: SWC, TAC, CSWP

Completion Date: 1990

- c) Develop model methodologies for such studies to facilitate comparison of results.

Implementors: SWC, TAC, CSWP

Completion Date: 1991

- d) Seek means to utilize waste stream composition data to identify recycling targets and design appropriate resource recovery programs.

Implementors: TAC, CSWP

Completion Date: Ongoing

- e) Determine the feasibility of obtaining commercial and industrial recycling figures directly from waste generators.

Implementors: SWC, TAC, CSWP

Completion Date: 1991

**POLICY 19:** Investigate ways to reduce packaging waste; determine whether local ordinances banning use of specific materials would be feasible or effective.

- a) Evaluate existing materials bans to determine their efficacy. If determined to be feasible and effective, develop a model ordinance banning the use of specific materials for adoption by Santa Clara County jurisdictions.

Implementors: IGC, SWC, TAC, CSWP

Completion Date: 1991

**POLICY 20:** Explore the feasibility of encouraging the development of local industries that would use recovered materials as a feedstock.

- a) Research types of industries that could reasonably be encouraged to locate in Santa Clara County. Identify local secondary materials manufacturers and explore the feasibility of expansion of those existing operations. Meet with representatives of secondary materials manufacturers to identify incentives that would influence such manufacturers to develop or expand facilities in this county.

Implementors: SWC, TAC, CSWP

Completion Date: 1991

- b) Determine the desirability of forming a Task Force, composed of representatives from economic development staffs, Chambers of Commerce, the Santa Clara County Manufacturing Group, and private developers, to court likely prospects.

Implementors: SWC, TAC, CSWP

Completion Date: 1991



**POLICY 21:** Support and encourage expansion of recycling activities throughout the county.

- a) Continue to explore the desirability of creating a County Recycling Coordinator position to provide technical assistance to cities and industries in developing appropriate programs. Investigate and identify potential sources of funding. Transmit findings to Board of Supervisors.

Implementors: IGC, SWC, TAC

Completion Date: 1990

- b) Support and encourage recycling activities undertaken by the private solid waste management industry.

Implementors: IGC, SWC, TAC

Completion Date: Ongoing

- c) Explore the establishment of annual awards or other recognition by the IGC for recycling achievements, including achievements by commercial and industrial establishments, and the private solid waste industry.

Implementors: IGC, SWC, TAC, CSWP

Completion date: 1990

- d) Disseminate information on, and encourage the establishment of yard waste composting programs throughout the county.

Implementors: TAC, CSWP

Completion Date: 1990 and ongoing

- e) Work with the recycling industry and American Institute of Architects to develop model building specifications to require an area for recycling in new commercial/industrial buildings.

Implementors: TAC, CSWP

Completion date: 1992

- f) Study other possible incentives for expanded commercial/industrial recycling activities. Work with the Santa Clara County Manufacturing Group, Chambers

of Commerce, and the California Resource Recovery Association. Distribute information to area businesses.

Implementors: TAC, CSWP

Completion date: Ongoing

## **OTHER WASTES (Chapter VII)**

**POLICY 22:** Encourage the establishment of measures to manage household hazardous wastes based on community needs and capabilities, and compliance with State and Federal regulations.

- a) Develop an effective countywide household hazardous waste management program which includes
  - A public education and awareness program that (1) includes information on the nature of household hazardous waste, (2) teaches the use of nonhazardous substitutes when possible, and (3) encourages public support for development of products which do not result in generation of household hazardous waste.
  - Ongoing and convenient collection and/or disposal opportunities;
  - An emphasis on recycling and/or treatment of household hazardous waste, thereby reducing the amount of waste to be landfilled;
  - Training public agency employees, who respond to household hazardous waste questions, to educate the public about less hazardous or nonhazardous practices and products; and
  - Development and support for legislation which encourages (1) the manufacture of less hazardous or nonhazardous products, (2) increased recycling of hazardous household substances and wastes, and (3) the development of a household hazardous waste program funding mechanism that has the force of State law.

Implementors: TAC, Tanner Advisory Committee, CSWP, CTP

Completion Date: 1990

**POLICY 23:** Determine the extent of the relationship between solid and hazardous waste management programs (as mandated by Title 7.3, Article 2 of the Government Code, and Division 20, Chapter 6.5, Article 3.5 of the Health and Safety Code) in Santa Clara County.

- a) Study and report on handling hazardous waste found at solid waste facilities or in incoming loads.

Implementors: TAC, Facility Operators CSWP

Completion Date: 1991

- b) Identify means to manage both friable and nonfriable asbestos that are in conformance with Federal, State, and local regulations and minimum standards.

Implementors: TAC, Facility Operators, CSWP

Completion Date: Ongoing

- c) Monitor problems associated with the treatment, collection and/or disposal of infectious medical waste from small-quantity generators.

Implementors: TAC, CEH, CSWP

Completion Date: Ongoing

**POLICY 24:** Seek adequate ways to collect and dispose of designated wastes generated within the county that are economically feasible and in compliance with Federal, State, and local regulations.

- a) Examine the need for and the feasibility of siting Class II solid waste facilities in the county.
- b) Continue efforts to improve enforcement and regulation of the collection and disposal of grease interceptor wastes, including consideration of a countywide ordinance regulating such collection and disposal.

Implementors: CEH, TAC, CSWP

Completion Date: 1990

**POLICY 25:** Encourage the development of adequate programs for the proper handling and disposal of sewage sludge which are in compliance with Federal, State, and local regulations.

- a) Continue to monitor Federal and State regulations governing sewage sludge handling and disposal.

Implementors: TAC, CSWP

Completion Date: Ongoing



**ENFORCEMENT (Chapter VIII)**

**POLICY 26:** Establish an effective enforcement program using Federal, State, and local regulations, to address health, public, and environmental concerns related to the solid waste management system throughout Santa Clara County.

- a) Review the existing solid waste monitoring programs, especially water quality programs, with responsible enforcement agencies to identify means of improving communication and coordination, and to avoid omissions and duplication of effort. Examine feasibility of jointly assessing constituents monitored.

Implementors: IGC, SWC, TAC, RWQCB, CWMB, LEAs, CEH, CSWP

Completion Date: 1992

- b) Determine feasibility of a countywide standard for frequency of inspections at solid waste facilities.

Implementors: RWQCB, IGC, LEAs, CEH, CSWP

Completion Date: 1992

- c) Explore exclusion of household hazardous and small generator hazardous waste materials from landfills by developing consistent load checking and collection programs throughout the county.

Implementors: County, Cities, IGC, CEH, CTP, CSWP

Completion Date: Ongoing

**POLICY 27:** The County Health Department will provide coordination for the countywide enforcement system.

- a) Determine need for regular meetings of all LEAs in the county.

Implementors: TAC, LEAs, CEH, CSWP

Completion Date: 1991

- b) Explore the desirability of further centralizing the LEA function within Santa Clara County.

Implementors: CWMB, IGC, TAC, LEAs, CEH, CSWP

Completion Date: 1992

- c) Investigate feasibility of preparing an annual report to the IGC on the status of solid waste enforcement issues.

Implementors: SWC, TAC, CEH, CSWP

Completion Date: 1992

**POLICY 28:** The County Solid Waste Program staff shall make evaluations of conformance of proposed projects with the CoSWMP.

- a) Develop guidelines to be used in making conformance evaluations and determinations. Develop an appeals process for conformance or nonconformance determinations.

Implementors: IGC, SWC, TAC, LEAs, CSWP

Completion Date: 1990

## **PLAN ADMINISTRATION (Chapter IX)**

**POLICY 29:** The Plan shall be administered by the County, as advised by the Intergovernmental Council (IGC). The IGC is recognized as an advisory body to the Board of Supervisors and City Councils of Santa Clara County. The IGC refers solid waste management issues to the Solid Waste Committee (SWC). This body of elected officials is advised by the Technical Advisory Committee.

**POLICY 30:** Proposals for private development of solid waste facilities are to be directed first to the local jurisdiction having permitting and land use authority over the proposed site. The local jurisdiction has the option of initiating necessary CoSWMP amendments by governing body action.

**POLICY 31:** This Solid Waste Management Plan establishes three subregions of the county: the North/Central Region, the West Valley Region, and the South County Region, for purposes of waste disposal. Each subregion shall dispose of wastes collected pursuant to franchise or other exclusive collection contracts within its own boundaries.

**POLICY 32:** The Intergovernmental Council shall continue to seek ways to improve solid waste management in Santa Clara County.

- a) Investigate the purpose of subregional boundaries and the desirability of

eliminating, maintaining, or redefining such boundaries on a temporary or long-term basis.

Implementors: IGC, SWC, TAC, CSWP

Completion Date: 1990

- b) Develop criteria and a process for approval to allow waste to be moved, on a temporary basis, across subregional lines without the necessity of a plan amendment.

Implementors: SWC, TAC, CSWP

Completion Date: 1991

- c) Investigate feasibility of instituting a joint powers body with decision-making authority for purposes of solid waste management.

Implementors: SWC, TAC, CSWP

Date: 1993

- d) Establish a definition for uncontested plan amendments and examine the feasibility of simplifying the approval process for such uncontested amendments.

Implementors: SWC, TAC, CSWP

Completion Date: 1990

**POLICY 33:** Solid waste facility owners should have contingency plans for management of said facilities in emergency situations such as, but not limited to, plant or equipment breakdowns, fuel shortages, and labor disputes.

- a) Review facility contingency plans to determine whether emergency situations are adequately addressed.

Implementors: TAC, CSWP

Completion Date: 1993

**POLICY 34:** Determine that the County Emergency Services Plan contains contingency measures for dealing with solid waste collection and disposal in the event of a disaster, such as a major earthquake.



- a) Review the County Emergency Services Plan to determine adequacy of solid waste contingency planning, and revise as needed.

Implementors: County Emergency Services Coordinator, TAC, CSWP, CEH, LEAs

Completion Date: 1991

**POLICY 35:** Seek to keep the local jurisdictions and the public informed regarding legislation affecting solid waste management issues.

- a) Track legislation with potential local impacts; and where possible, recommend positions on bills for adoption by the County and cities.

Implementors: IGC, SWC, TAC, CSWP

Completion Date: Ongoing

**POLICY 36:** The Intergovernmental Council shall seek to keep the public informed of solid waste issues and activities in Santa Clara County, and continue to encourage public participation in solid waste planning.

- a) Continue publication of the IGC Annual Report on Solid Waste Management in Santa Clara County. In years when a Plan Revision is required, the Executive Summary of the Revision will serve as the Annual Report.

Implementors: IGC, SWC, TAC, CSWP

Completion Date: Annual

- b) Investigate feasibility of producing other public information documents, such as

- (1) A solid waste "primer" handout;
- (2) Regular updates of the "Santa Clara County Recycles" brochure; and
- (3) Household hazardous waste collection day information.

Implementors: CSWP

Completion Date: Ongoing

## POLICIES AND IMPLEMENTATION MEASURES

---

### *Mid Term: 1994-1998*

1. Determine the role of the cities and the County regarding collection practices in unincorporated areas of the county.
2. Continue to monitor availability of long-term landfill capacity of all jurisdictions in the county.
3. Continue to monitor legislation pertinent to solid waste management issues.
4. Continue active pursuit of recycling efforts and encourage expansion of efforts wherever possible.
5. Monitor waste-to-energy technology. Encourage development of facilities if environmentally and economically feasible.
6. Continue to monitor legislation and new ideas addressing the management of other wastes, and update communities and facilities in the county as needed.
7. Continue to monitor other wastes generated in or imported into Santa Clara County.
8. Maintain a countywide data bank on currently operating and former landfill sites. Update the "Active and Inactive Landfill Sites" map.

## POLICIES AND IMPLEMENTATION MEASURES

---

### *Long Term: 1999-2008*

Tasks for the long-term planning period will be developed as a result of actions undertaken and decisions made during the short and midterm. The ongoing countywide solid waste planning process focuses on short-term tasks which in turn contribute to long-range solutions to solid waste problems.

Collection tasks undertaken during the long-term planning period will concentrate on rates, collection agreements, and special collection programs (e.g. curbside residential collection for recycling, household hazardous waste, and yard trimmings).

Disposal tasks during the long-term planning period will continue to emphasize maintaining 30 years of ongoing disposal capacity for all jurisdictions in Santa Clara County. As resource recovery is expanded, mechanisms to gather waste-stream data will have to be improved and

refined. Siting and development of transfer stations may be necessary to take advantage of landfill capacity farther from waste generation points.

While waste-to-energy is not currently a waste disposal option in Northern California, future technological advances in the field could change this. Long-term tasks will include monitoring and evaluating new waste management technologies.





# CHAPTER III

## INTRODUCTION





## OVERVIEW

---

Santa Clara County has a thriving and dynamic economy, a temperate climate, and a growing population. Solid waste generation and disposal in Santa Clara County is influenced by these characteristics. Waste management within the county is also affected by the regulatory structure established by the State of California and by historical patterns and trends in local public and private waste management systems.

These factors are discussed in this Chapter, providing a context for understanding the systems described in detail in subsequent chapters of this County Solid Waste Management Plan Revision.

## REGIONAL CHARACTERISTICS

---

Santa Clara County is located at the southern end of San Francisco Bay. Encompassing 1,320 square miles (846,426 acres), the county is the second largest of the nine Bay Area counties. Adjacent counties include San Mateo to the northwest, Santa Cruz to the west, San Benito to the south, Merced and Stanislaus to the east, and Alameda to the northeast. (See Figure III.1)

The county seat, the City of San Jose, is located 50 miles south of San Francisco and 42 miles south of Oakland. In addition to San Jose, incorporated communities include the Cities of Campbell, Cupertino, Gilroy, Los Altos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Palo Alto, Santa Clara, Saratoga and Sunnyvale, and the Towns of Los Altos Hills and Los Gatos.

The highly urbanized northern portion of the county, which contains approximately 90 percent of the county population, contains thirteen of the fifteen cities. The southern area remains predominantly rural and agricultural.

The county enjoys a Mediterranean climate with warm, dry summers and mild, wet winters. Rainfall ranges from an average of 14 inches per year in central San Jose to over 44 inches in parts of the Santa Cruz mountains.

Area characteristics are described in more detail in sections below.

## TOPOGRAPHY

Santa Clara County is roughly rectangular in shape and encompasses such features as the Santa Clara Valley, the Santa Cruz Mountains, the mountains of the Diablo Range, and the San Francisco Baylands. Elevations range from sea level to 4,312 feet.





- SANTA CLARA COUNTY -  
Regional Setting

FIGURE III.1



Santa Clara County  
Department of Planning  
& Development - 1989



The Santa Clara Valley comprises approximately one-third of the total county acreage (approximately 280,000 acres) and is relatively flat with few topographic barriers. From the southern end of the San Francisco Bay, the plain extends southward through the central part of the county, between the Santa Cruz Mountains on the west and the Diablo Range on the east. At the Coyote Narrows, the mountain converge to divide the broad northern plain from the narrower southern plain, which extends into San Benito County.

The remaining two-thirds of the county consists of rolling grasslands and oak-studded foothills adjacent to the valley and steep slopes and fairly inaccessible mountainous regions in the Santa Cruz and Diablo mountains.

## GEOLOGY

The oldest and largest geologic unit found in Santa Clara County is part of the Franciscan-Knoxville group of the Upper Jurassic Age. Overlying Jurassic rocks are marine sedimentary rocks of the Cretaceous age. Miocene beds bordering the San Andreas fault and occur in isolated patches in the Diablo Range. The floor of the central plain is composed of an accumulation of Quaternary clay, sand, and gravel, with Pliocene strata exposed along the edges. Tertiary volcanic rocks are rarely found, occurring as small local bodies.

The physical structure of the county is controlled by predominantly northwest trending faults, characteristic of the general structural trend of California. In many places, folding and crumpling of sediments are associated with faulting, and numerous northwest-trending folds in the Tertiary beds have been mapped. The most prominent faults in the area are the San Andreas, Hayward, and Calaveras. These three major fault systems are comprised mostly of strike-slip faults capable of large right lateral displacements (east blocks moving southward). Other related fault systems of lesser extent are the Sargent, Silver Creek, and Madrone Springs faults.

## HYDROLOGY

The Santa Clara Valley, Coyote, and Llagas basins contain the major groundwater sources in the county. Water from aquifers supplies nearly 60 percent of the total water used in the Santa Clara Valley basin, and nearly all of the water used in the Coyote and Llagas basins. In general, groundwater from most wells is of good quality. Groundwater found in areas along the San Francisco Bay is generally not of good quality due to the high water table and the salt water intrusion characteristic of bayland areas.

Most surface water runoff flows into various streams and creeks in the Santa Clara Valley, then on into the San Francisco Bay. The Coyote Creek system, which drains much of the eastern mountains and foothills and the eastern part of the northern Santa Clara Valley, flows northward from the Coyote and



Anderson reservoirs. The Guadalupe River drains a large part of south San Jose and the hills around Calero, Almaden, and Guadalupe reservoirs. Los Gatos Creek supplies Lexington and Vasona reservoirs and joins the Guadalupe in central San Jose. Local reservoirs supply water for domestic and agricultural uses, groundwater recharge, and provide flood protection.

There are two exceptions to the typical drainage pattern in the county:

1. Drainage northward into the San Francisco Bay through Alameda County from about 240 square miles in the northeast section of the county; and
2. Drainage southward to the Pajaro River and on to Monterey Bay from approximately 400 square miles along the southern county border.

Other waterways in the county include the San Tomas, Saratoga, Calabazas, Stevens, Permanente, Adobe, Matadero, Los Trancos, and San Francisquito creeks.

## CLIMATE

Moderate temperatures and light to moderate precipitation are typical of the local climate. Yearly temperature extremes range from a low of around 10 degrees to a high of over 100 degrees Fahrenheit, with an average of 59 degrees. Annual precipitation averages from 14 inches on the valley floor to 44 inches in the western hills and 30 inches in the eastern hills.

The agricultural growing season ranges from 200 to 300 days in length, depending on the area of the county.

## WILDLIFE

In spite of the high degree of urbanization on the valley floor, Santa Clara County has a great variety of wildlife. Extensive areas provide good deer habitat and support substantial populations of rabbit, mountain-lion, coyote, raccoon, opossum, grey and red fox, wildcat, and skunk. Wild turkey and boar are found in the mountainous areas.

An extensive variety of both shore and land birds are found in Santa Clara County. The Baylands of the county are an important stop along the Pacific Flyway, a route for spring and fall flights of migratory birds.

Sturgeon, striped bass, flounder, and steelhead are found in the waters of the bay and its sloughs. Trout and bass can be found in the county's reservoirs. Oysters, clams, mussels, and other mollusks are found in the Bay and its

tidelands but are not considered safe for human consumption because of the contamination of San Francisco Bay.

## VEGETATION

The county supports a variety of vegetation including conifer forests (Redwood, Douglas fir, and a variety of pines), hardwood groves (oaks, madrone, and maples), chaparral covered hillsides (Buck Brush, Chemise, and Ceanothus), rolling grasslands, and riparian tree stands. The most abundant vegetation is found in mountain areas, principally the Santa Cruz Range, where rainfall is heaviest.

## PATTERNS OF LAND USE DEVELOPMENT

### Urban Land Use

Single family dwellings are the most extensive urban land use, followed by lands dedicated to streets and highways which serve single-family dwellings.

Industrial development is found in centers scattered throughout the county. Most urban industrial areas are located in the northern portion of the county.

Commercial land use is scattered throughout the county, having shifted from the original downtown business districts towards regional shopping centers in residential and other areas. In the past few years, a re-emergence of urban centers has occurred but with a focus on office and entertainment developments.

Public and private redevelopment of older urban areas is leading to a shifting and intensification of land uses in the county.

Intensification of land use makes land more productive. This may include producing more income on that land, using the land in a more commercial way, or developing the land so that more people can live on it.

### Rural Land Use

Agricultural land use covers about one-third of the county land area, with most agricultural operations found in the south valley region and in range lands of the Diablo and Santa Cruz mountains. Nursery and cut flower operations are scattered throughout the county. County land use policies for agricultural areas support the continued preservation of these lands for agricultural operations.

Overall development of rural areas is increasing, but development of hillside and mountain areas has been minimized. City and County General Plans

reserve certain areas for open space, restrict construction in areas with slopes exceeding 30 percent, and encourage cluster development to minimize road grading in hill areas.

## TRANSPORTATION

Santa Clara County has a network of Federal, State, and County highways, as well as an extensive system of expressways which tie into the highway network. Major highways include:

**Bayshore Freeway (U.S. 101) and Interstate 880/State Highway 17**, the major north/south routes, providing access to the northern and southern parts of the state;

**Interstate 280** connects the south bay with the northern peninsula;

**Interstate 680** connects the region to the east bay;

**State Highway 85** extends north up the peninsula and south through the central valley; and

**State Highway 237** extends east/west along the south end of the bay.

A new light-rail system will provide a daily commuter alternative when completed in 1991. It will connect the north area of the county along the bay, to downtown San Jose and southern San Jose.

Southern Pacific rail lines in western and eastern portions of the county serve as the major rail routes, connecting the region with the cities of Oakland, San Francisco, Sacramento, and Los Angeles.

Santa Clara County is served by three international airports:

**San Jose International Airport**, located in northern San Jose near the southern tip of San Francisco Bay;

**San Francisco International Airport**, located in San Mateo County on the west side of San Francisco Bay; and

**Oakland International Airport**, located in Alameda County on the east side of San Francisco Bay.

## POPULATION AND EMPLOYMENT

Since the 1950's, Santa Clara County has experienced rapid growth in population and employment. Although the rate of change has slowed in the past 10 years, population and employment are expected to continue to



increase. In 1970, county population was 1.0 million; by early 1988, population had increased to over 1.4 million; by 2005 population is expected to reach 1.6 million. Correspondingly, in 1985, there were an estimated 819,600 jobs in the county; by 2005, the number of jobs is projected to exceed 1.1 million. (See Figure III.2).

Consistent with national trends, average household size has been declining in Santa Clara County. The average was 2.76 persons per household in 1980, compared with 2.75 nationally. Household size will decrease slightly until 2005, then will begin to increase. This is due to changing migration patterns and changing social characteristics. These characteristics include fertility, divorce rates, and the number of people living alone. (See Figure III.3).

## ECONOMY

In the past, agriculture was the mainstay of the economy in Santa Clara County. Rich soils, a mild climate with a long growing season, and nearby markets resulted in a highly productive agricultural center. However, within the past 30 years, the county has experienced a rapid transformation from an agriculturally-oriented economy to one of the fastest growing urban industrial areas in the nation.

The major sectors of Santa Clara County's strong and diverse economic base include manufacturing, services, wholesale and retail trade, and agriculture.

### Manufacturing

Santa Clara County has the largest concentration of manufacturers in the Bay Area. Electronics and aerospace industries provide about two-thirds of total manufacturing jobs in the county. Studies indicate that nearly one-third of all the jobs in the county are in high-tech industries, such as electronics, defense, aerospace, computer wholesale, research and development, computer systems, and other related industries, thus constituting the largest employment sector. Local semiconductor and computer companies trade in an international market.

### Services

Increasing population and income levels in the county have supported the development of a thriving service industry. As a result, service industries now constitute the second largest employment sector, providing over one-fourth of all jobs in the county.

Business services, including electronics research and development, and computer services are experiencing the fastest growth of local service industries.

FIGURE III.2 - Population and Number of Jobs in Santa Clara County\*

AREA	1980		1985		1995		2005	
	population	jobs	population	jobs	population	jobs	population	jobs
CAMBELL	33,923	20,390	35,500	23,300	37,500	28,400	37,500	28,500
CUPERTINO	43,953	35,239	47,300	38,500	51,200	48,300	51,100	53,200
GILROY	26,531	9,168	31,100	13,000	44,100	25,800	66,900	37,600
LOS ALTOS	29,859	8,505	30,100	8,200	29,800	8,800	29,100	8,600
LOS ALTOS HILLS	9,119	2,036	9,300	2,000	9,700	2,100	9,800	2,100
LOS GATOS	30,474	13,309	31,000	15,400	31,600	16,600	31,400	17,400
MILPITAS	37,947	11,883	42,000	22,300	53,800	42,600	58,300	55,900
MONTE SERENO	4,201	468	4,250	400	4,300	400	4,300	400
MORGAN HILL	22,000	5,572	24,800	7,400	33,200	14,700	42,700	25,400
MOUNTAIN VIEW	61,691	59,279	64,600	67,400	69,800	75,000	69,800	80,700
PALO ALTO	66,252	75,757	66,700	81,300	69,700	85,100	70,500	88,000
SAN JOSE	690,059	233,267	749,200	280,800	835,100	377,300	866,500	449,400
SANTA CLARA	88,924	98,371	90,600	115,600	98,400	130,100	101,600	142,100
SARATOGA	30,046	5,781	30,400	6,100	31,500	6,600	31,200	6,400
SUNNYVALE	107,627	116,253	111,300	134,300	125,500	148,600	127,600	153,600
REMAINDER	12,465	3,467	12,500	3,600	13,200	3,500	14,600	3,300
<b>TOTAL</b>	<b>1,295,071</b>	<b>698,745</b>	<b>1,380,650</b>	<b>819,600</b>	<b>1,538,400</b>	<b>1,013,900</b>	<b>1,612,900</b>	<b>1,152,600</b>

\* Source - ABAG Projections '87

FIGURE III.3 - Number of Households and Persons Per Household in Santa Clara County\*

AREA	1980		1985		1995		2005	
	households	persons	households	persons	households	persons	households	persons
CAMBELL	14,013	2.40	14,440	2.44	16,160	2.29	16,690	2.22
CUPERTINO	15,778	2.75	17,090	2.73	19,230	2.62	19,990	2.51
GILROY	8,246	3.18	9,540	3.22	14,160	3.09	22,300	2.98
LOS ALTOS	10,538	2.78	10,800	2.74	10,980	2.65	11,000	2.59
LOS ALTOS HILLS	2,790	3.03	2,910	2.99	3,200	2.82	3,290	2.73
LOS GATOS	11,802	2.52	12,150	2.48	12,920	2.37	13,230	2.30
MILPITAS	11,376	3.27	12,420	3.23	16,910	3.05	19,210	2.92
MONTE SERENO	1,423	2.83	1,460	2.80	1,520	2.68	1,570	2.59
MORGAN HILL	6,597	3.28	7,440	3.29	10,480	3.13	14,070	3.01
MOUNTAIN VIEW	27,950	2.13	29,080	2.17	31,960	2.11	32,610	2.07
PALO ALTO	24,983	2.37	25,330	2.36	27,700	2.26	28,830	2.17
SAN JOSE	231,425	2.93	249,530	2.96	294,580	2.79	320,480	2.66
SANTA CLARA	34,279	2.51	34,880	2.51	39,420	2.41	41,530	2.37
SARATOGA	9,547	3.09	9,970	3.00	10,710	2.89	10,980	2.78
SUNNYVALE	43,744	2.44	45,270	2.44	52,820	2.35	55,310	2.28
REMAINDER	4,028	3.02	4,040	3.00	4,410	2.92	4,980	2.87
<b>TOTAL</b>	<b>458,519</b>	<b>2.76</b>	<b>486,350</b>	<b>2.78</b>	<b>567,160</b>	<b>2.66</b>	<b>616,070</b>	<b>2.56</b>

\* Source - ABAG Projections '87



## Wholesale and Retail Trade

Approximately 5 percent of county employment is in wholesale trade and 15 percent in retail trade.

Similar to national trends, commercial development in Santa Clara County shifted away from the original downtown business districts towards regional shopping centers located in developing residential areas.

However, local cities are now reviving and expanding existing commercial and cultural sections rather than developing new areas. Recent redevelopment and growth in the downtown district of San Jose and other cities is consistent with the overall intensification of land use found throughout the county.

## Agriculture

Agriculture continues to make an important contribution to the local economy. In 1988, Santa Clara County had 25 "million dollar crops," and the gross value of agriculture was \$142.5 million (source: Santa Clara County Agricultural Crop Report, 1988).

Increased urbanization has led to an evolution in the types of crops grown in the county. The shift is to crops which are highly productive in a small land area. Nursery products, cut flowers, and mushrooms are currently the top agricultural products in the county.

## SOLID WASTE PLANNING CONSIDERATIONS

Planning for solid waste management must address Santa Clara County's diverse and dynamic environment. A variety of storage, collection, and disposal options must be available to meet the needs of local waste generators.

Although Federal and State requirements set the context for local solid waste management, regional characteristics affect all aspects of local planning. Following are regional issues which impact solid waste management in Santa Clara County:

- Because many individuals often live and work in different communities, waste generation and disposal must be addressed as a regional concern.
- Regional development patterns have resulted in a higher concentration of commercial and industrial activity in some cities. Although this development benefits the entire region, only the industrial cities face the problems associated with generating industrial waste.

- The amount of residential waste generation is influenced by both population size and household size. Each resident generates waste; however, each household, regardless of size, may produce consistent amounts of certain wastes, such as newspapers and yard debris. The characteristics of residential neighborhoods must be considered when planning for waste management alternatives.
- The growth and change in industrial activity has significantly changed the composition of the waste stream and amount of waste generated. Waste composition affects planning for waste management, including development of recycling options.
- The development of land surrounding solid waste facilities must be continually monitored to prevent the development of incompatible land uses and activities close to solid waste facilities.
- Mountainous areas of the county present special problems for collection of waste. Narrow roads with fairly steep slopes may restrict access by collection vehicles. This terrain may require the use of smaller, more maneuverable vehicles. The distances between residents served are also greater. The result is a higher cost of collection services to such areas, and higher rates may be charged to area residents.
- The high water table in bayland areas, and the relatively permeable soils and shallow, unconfined groundwater aquifers typical of the three major groundwater basins, demand that the continued protection of groundwater be taken into account when siting or expanding solid waste disposal facilities.
- The locations of active fault traces must be considered when identifying potential solid waste disposal sites.
- Wildlife and vegetation protection must be considered in collection and disposal practices, with special consideration given to impacts on any endangered species found in Santa Clara County.

## **SOLID WASTE DEFINITIONS AND CLASSIFICATIONS**

---

This Plan Revision focuses on the management of "solid waste" as defined by California laws and regulations. Other waste types are also discussed as necessary for planning for solid waste management requirements.

As used in this Plan Revision, solid wastes are defined as

*All putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes.*

(California Government Code section 66719)

Solid waste does not typically include sewage wastes. If certain criteria are met, sludges from both sewer treatment plants and drinking water treatment plants can be disposed of in solid waste management facilities.

Under California law, solid waste does not include hazardous waste, which is governed under a separate regulatory system. However, household hazardous waste, asbestos waste, infectious/medical waste, and other hazardous wastes determined to be a problem at solid waste facilities are addressed within the context of this Plan.

Hazardous waste is defined as

*A waste, or combination of wastes, which because of its quantity, concentration, or physical, chemical or infectious characteristics may either*

- a) Cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness.*
- b) Pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed.*

(California Government Code section 66714.8)

Disposal requirements for various types of wastes are established by the State Water Resources Control Board (SWRCB). Waste classifications are based on an assessment of the potential risk that disposal of a waste will pose to the quality of the waters of the State (California Code of Regulations, Title 23, Chapter 3, Subchapter 15, Article 2, Sections 2520 to 2524). The SWRCB waste classification system is used by all waste management facilities in the State. Waste classifications are

**Hazardous Waste:** A waste which consists of or contains toxic substances and/or other substances which could significantly impair the quality of the usable waters of the state. Examples include, but are not limited to: Fluids such as cleaning fluids; petroleum fractions,



acids, alkalies, phenols, and spent washing fluids; substances from which toxic materials can leach such as ashes and chemical mixtures; pesticides or chemical fertilizers, and; discarded chemical containers. These wastes must be disposed of in a Class I waste management facility.

**Designated Waste:** A nonhazardous waste which consists of or contains pollutants which, under ambient environmental conditions at a waste management facility, could be released at concentrations in excess of applicable water quality objectives, or which could cause degradation of the waters of the State. Designated wastes are also defined as hazardous waste which has been granted a variance from hazardous waste management requirements by the SWRCB. These wastes must be disposed of in either a Class I or Class II waste management facility.

**Nonhazardous Solid Waste:** All putrescible and nonputrescible solid, semi-solid, and liquid wastes which do not contain wastes which must be managed as hazardous wastes and/or designated wastes. This includes garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid wastes and other discarded solid or semi-solid waste. These wastes may be disposed of in a Class I, Class II, or Class III waste management facility.

**Inert Waste:** Wastes which do not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives, and do not contain significant quantities of decomposable waste. These wastes do not need to be disposed of at classified waste management facilities.

Solid waste facility classifications are described in Chapter V, Disposal and Facilities, page V-11.

## HISTORY OF SOLID WASTE MANAGEMENT IN SANTA CLARA COUNTY

---

### THE EARLY YEARS

Prior to 1956, solid waste management practices in Santa Clara County were simple and somewhat primitive in comparison with today's standards. Solid waste was collected by a waste hauler or was brought directly to a dumpsite by the waste generator. Organic wastes were burned or fed to hogs, resulting in removal of most of the organic materials from the waste stream. Residual wastes, primarily inorganic materials, remained in the open dumps.

Controls for solid waste collection were in the form of licensing or franchising agreements by municipalities. Unincorporated areas were under the jurisdiction of the County Health Department.

In 1956, the County Board of Supervisors adopted an ordinance prohibiting open burning and the feeding of raw garbage to hogs. The County Health Department was delegated the authority to regulate health-related aspects of disposal sites in the county.

Existing open dumps were transformed into "sanitary landfills" by requiring sites to have non-permeable bases and wastes were to be compacted and covered with dirt. Many of the existing sites were converted to this system by incorporating specific alterations to the site within a designated time period.

In 1972, the State Legislature passed the Nejedly-Z'berg Dills Solid Waste Management and Resource Recovery Act which created the California Waste Management Board (CWMB). CWMB's purpose was to develop state policy for solid waste management, including setting minimum standards for solid waste handling and disposal. The basic policy was developed and approved by the CWMB by 1975. Between 1976 and 1977, the first solid waste facilities permits were issued.

The Solid Waste Management and Resource Recovery Act left responsibility for waste management with local governments, but gave CWMB responsibility for overseeing local waste management planning. Each county was required to prepare a solid waste management plan to be approved by the county board of supervisors and the majority of the cities containing a majority of the incorporated population in that county. The solid waste management plan was then submitted to CWMB for approval.

### **THE COUNTY SOLID WASTE MANAGEMENT PLAN: 1975 TO 1978**

To comply with State regulations, Santa Clara County contracted for preparation of the County Solid Waste Management Plan (CoSWMP). The contracting firm (Metcalf and Eddy) was directed to prepare a report that detailed a twenty year solid waste management program for the county.

The draft 1975 Plan approached solid waste issues from a technical perspective; evaluating technical options, identifying potential sites, and developing a course of action aimed at technical resolution of identified problems. It provided a repository of data on the Santa Clara County solid waste system as it existed in 1975. Major proposals of the draft Plan provided for the following:

- Divide the county into four (4) "subregional" service areas (Northwest, Central, Southwest, and South County Areas);



- Create Joint Powers Authorities (JPAs) for each "subregional" area to work on solving solid waste issues;
- Establish a Solid Waste Planning Committee to coordinate planning efforts within the county;
- Conform local operations with state collection, disposal, and landfill operations standards;
- Examine Class I (hazardous) waste disposal and study the potential for siting a Class I facility within the county;
- Develop three (3) processing facilities and two (2) new landfill sites; include three areas as potential landfill sites; and examine development of transfer stations in the Northwest Area; and
- Examine waste generation to determine sizing of resource recovery facilities, and conduct studies of energy recovery facilities which produce fuel or fuel products.

The City of San Jose did not approve the Plan in 1976 due to issues raised during consideration of the Plan. These issues included strong public objection to proposed landfill sites located in the City's sphere of influence, and City's concern about importation of out-of-city waste into San Jose. As a result, an Addendum to the draft Plan was approved in 1977 removing the *proposed sites* and allowing for the designation of *potential sites* on an advisory basis only.

Following local approval, the Plan was submitted to the CWMB. Although the majority of the Plan and Addendum were approved, the Plan was returned to the County for revision of the administrative structure element.

An Administrative Structure Amendment was developed and approved, then submitted to CWMB, resulting in final Plan approval in 1978. The Amendment proposed the creation of two committees:

***Solid Waste Planning Committee*** (SWPC), composed of the Intergovernmental Council (IGC) plus three non-voting members representing the private solid waste industry, to serve as the chief advisory committee for the Board of Supervisors and the cities on solid waste issues; and

***Technical Advisory Committee*** (TAC), composed of representatives of each city, the County, and the solid waste industry, to provide technical advice and support to the SWPC.



## PLAN IMPLEMENTATION: 1978 TO 1984

Implementation following the final approval of the Plan focused on waste management planning efforts within each of the subregional areas, as described below.

### Northwest Area

In 1977, the cities of Palo Alto, Mountain View, Los Altos, Cupertino and Sunnyvale, and the Town of Los Altos Hills, formed the North Santa Clara County Solid Waste Management Program to examine the potential for joint efforts in waste management.

The objectives of this organization were

- To extend the life of existing landfills by modifying operating procedures and closure plans;
- To promote source separation and recycling to reduce the quantities of materials discarded as well as examine other forms of waste reduction through resource recovery; and
- To identify additional landfill capacity for use once existing local landfills were filled.

The six-city organization completed a number of studies on specific sites within the Northwest Area. They examined regulatory requirements, financing options, and environmental concerns.

- In 1982, a joint powers agreement executed by five cities created the North Santa Clara County Solid Waste Management Authority (SWMA). The City of Mountain View did not continue to participate in the organization since the City's landfill was considered adequate to meet the City's long-term disposal capacity needs.

The SWMA governing board consisted of elected officials from each member agency. A technical advisory committee, composed of public works directors, city managers, and a representative from the County Executive's Office, advised the Board on the technical aspects of the studies performed. A Citizens Advisory Committee (CAC), which consisted of 15 members from the general public, was added in the Spring of 1983.

The SWMA adopted four major principles to guide its activities:

- To conserve resources by promoting the recycling and reuse of materials, recovering the energy value of solid waste, and reducing the participating jurisdictions' dependency on the use of landfills;

- To provide all jurisdictions with at least thirty years of solid waste disposal capacity;
- To provide such capacity in a manner which was technically, economically, and environmentally feasible; and
- To encourage and foster participation of the public in the planning, scheduling, and development activities of the organization.

After conducting a broad analysis of possible landfill sites within the north county area, the SWMA selected a potential site for a landfill and a waste-to-energy facility. In 1983, the Governing Board voted to initiate an amendment to the CoSWMP to add the site and several proposed transfer stations to the Plan. During the amendment approval process, intense public opposition to the site was generated. As a result, the project was stopped.

The SWMA disbanded in 1984, following disapproval of the proposed site. Each city signed ten-year disposal agreements with the City of Mountain View, to provide a total of 2.3 million tons of disposal capacity. To provide this capacity, the user cities provided funding for purchase of the Stierlin Road Landfill, also known as the Ferrari Site, adjacent to Mountain View's existing landfill.

### **Central Area**

In 1975, the Regional Water Quality Control Board and the Army Corps of Engineers shared jurisdiction over wetlands portions of the Newby Island Landfill, Areas 1 and 2. In January, 1982, changes in Federal policy removed the Corps jurisdiction over the site.

Six months later, the Regional Water Quality Control Board (RWQCB) notified the owners of the landfill, International Disposal Corporation (a subsidiary of Browning-Ferris Industries), that they would not be allowed to expand into Area 2. This result would have forced the landfill, which handled the majority of wastes from Milpitas and San Jose, to close within a year. Although the RWQCB ruling was eventually reversed, the experience encouraged San Jose to look beyond the Newby Island Landfill for long term capacity.

In 1982, the City of San Jose added four potential landfill sites to the City General Plan and hired a Solid Waste Program Manager to coordinate solid waste activities. In June 1984, the Kirby Canyon Landfill, owned by Waste Management Incorporated, was amended into the CoSWMP.

In February 1980, Browning-Ferris Industries requested that the Solid Waste Planning Committee circulate an amendment placing Hellyer Canyon in the Plan as a potential landfill site. The City of San Jose refused to approve the Hellyer Canyon amendment in 1981. In November 1982, the San Jose City



Council denied a request to designate both Hellyer Canyon and San Bruno Canyon as potential sites in the City's General Plan.

In 1977, the Cities of San Jose and Santa Clara developed a study of the potential for a waste-to-energy facility for the two cities. Bechtel Corporation completed the report in 1978. Both cities have individually studied further the potential for development of waste-to-energy facilities. San Jose's 1983 study concluded that waste-to-energy was both economically and technically feasible when compared to existing and projected landfill rates. Santa Clara's study concluded that a large scale facility would not be economically viable using only Santa Clara's waste.

Studies completed in 1984 indicated that the City of Santa Clara's landfill would reach capacity in 1992, four years earlier than originally anticipated. The City of Santa Clara has agreed to a long-term (30-year) disposal contract with BFI for disposal at Newby Island Landfill. Also, the City purchased a 586-acre site in the Altamont Pass area in Alameda County as a contingency.

### **Southwest Area**

The cities of Campbell, Monte Sereno, and Saratoga, the Town of Los Gatos, and the surrounding unincorporated area have contracted for 20 years of waste collection and disposal services so formal joint planning for additional capacity has not been initiated.

### **South County Area**

The South County region, including the cities of Gilroy and Morgan Hill, has contracted for sufficient disposal capacity at the Pacheco Pass Landfill, so there was little interest in joint efforts to plan for additional capacity.

## **THE 1984 CoSWMP REVISION**

Because the first CoSWMP was fully approved and adopted in 1978, no revision of the plan was required until 1981. In 1981, the original Plan was determined to be current and applicable to Santa Clara County and was resubmitted to the State without change. The CWMB responded in February, 1983 stating that the Plan must be revised.

To assist with the Plan revision, the Technical Advisory Committee (TAC) was re-activated. A countywide funding system was developed to support the Revision, and County staff was hired to perform the tasks required to revise the Plan.

In May of 1984, a Solid Waste Community Advisory Committee (SWCAC) was appointed by the Solid Waste Planning Committee to assist with the



development of the revision by identifying solid waste issues of community concern. SWCAC membership included representatives from thirteen community organizations: The American Association of University Women; the Associated General Contractors of California; the Central Labor Council; the Committee for Green Foothills; the Leagues of Women Voters of Santa Clara County; Palo Alto War on Waste; the Peninsula Conservation Center; the San Jose Chamber of Commerce; the Santa Clara County Manufacturing Group; the Santa Clara County Medical Society; the Sierra Club; the Tri-County Apartment Association; and the United Citizens Against Hellyer Dump.

The major solid waste issues identified in the 1984 Revision were

***Long-Term Disposal Capacity:*** Faced with dwindling long-term capacity, the Revision set up an ongoing countywide planning process to encourage cooperative efforts among the jurisdictions in addressing capacity problems. Key goals were to increase communication among the various public and private entities involved in solid waste management, and to expand information on the solid waste management system.

***Recycling and Resource Recovery Alternatives:*** The implementation schedule of the Revision outlined aggressive pursuit of alternatives to landfilling, including recycling, waste-to-energy, and methane recovery.

***Enforcement of Solid Waste Regulations:*** The Revision called for an evaluation of the effectiveness of the enforcement system, recognizing concerns expressed by the SWCAC.

***Re-evaluation of the Solid Waste Decisionmaking Structure:*** The revision called for the appointment of a task force to examine the current decisionmaking system, evaluate its effectiveness, and develop recommendations for improvement.

## PLAN IMPLEMENTATION: 1984 TO 1989

Accomplishment of local goals established in the solid waste management planning process has resolved the major issues identified in the 1984 Plan Revision. The current status of solid waste management in Santa Clara County demonstrates the success in addressing local waste management issues that has resulted from countywide commitment to interjurisdictional cooperation.

The 1984 Revision identified four major solid waste issues facing the county:

1. Insufficient long-term disposal capacity;
2. Development of recycling and resource recovery alternatives to reduce the waste stream;
3. Effective enforcement of solid waste regulations; and
4. Need to re-evaluate the Decision-making Structure.

Progress has been made in all four areas. This Plan Revision describes a system with approximately 30 years of disposal capacity for every jurisdiction; well established and successful resource recovery programs in most jurisdictions; initiation and/or expansion of programs for additional jurisdictions; an expanded enforcement program; and an improved decision-making structure.

Specific actions and/or accomplishments have included:

- The solid waste decision-making structure was evaluated by a 17-member Task Force appointed by the Solid Waste Planning Committee in October, 1985.
- The Intergovernmental Council established the Solid Waste Committee (SWC) to fill the role previously played by the Solid Waste Planning Committee. See Chapter IX, Plan Administration, for a description of the current decision-making structure.
- The Solid Waste Committee initiated issuance of an Annual Solid Waste Report to improve public understanding of solid waste issues in Santa Clara County. The first Annual Report was presented to city councils and the Board of Supervisors in February 1987; the second in June 1988.
- The 1986 Solid Waste Management Survey collected information on collection and disposal services provided to county residents.
- The Santa Clara County Manufacturing Group sponsored a series of recycling workshops which resulted in compilation of a list of resources to be used in developing commercial/industrial recycling programs.
- County Solid Waste Program staff worked with the Santa Clara County Manufacturing Group to develop incentives for commercial/industrial recycling, develop model building specifications to require recycling areas in new commercial buildings, and conduct a study of uses and markets for Class III materials.

- The County Solid Waste Planning Program co-sponsored the California Resource Recovery Association Annual Conference in 1987.
- The City of San Jose developed a model zoning ordinance for siting permanent and mobile recycling facilities. The model was used in implementing AB 2020.
- A study of the county's critical air basin was undertaken by Combustion Engineering as part of the environmental review for a proposed Bay Area Resource Recovery Facility in Redwood City.
- A study of the use of sludge for waste-to-energy or compost has been initiated by the San Jose Water Pollution Control Plant.
- The number of local enforcement agencies (LEAs) was decreased to fourteen from the sixteen LEAs described in the 1984 CoSWMP. At present, every city except Mountain View and Sunnyvale acts as LEA for non-health related standards within its borders. The County Health Department enforces non-health related standards in the unincorporated areas and in the Cities of Mountain View and Sunnyvale, and health-related standards countywide.
- Funding for countywide enforcement has been increased. In July 1988, the Board of Supervisors approved an administrative fee of \$0.16 per ton of solid waste landfilled countywide to replace the Health Standard Enforcement Fee previously charged only for wastes disposed at facilities in unincorporated areas.

The funding change provides for increased staffing and expansion of the County's health-related enforcement program. This fee increase will provide for improvements in the enforcement of health-related regulations.

- Enforcement actions have been taken as a result of a review of the status of facility permits to bring non-complying solid waste facilities into compliance.
- An investigation of daily cover requirements versus performance standards led to the proposed use of performance standards by several landfills in the county.
- Anticipated closure of the Mountain View Landfill required cities served by the landfill to negotiate for long-term disposal capacity at other facilities. Since both Newby Island and Kirby Canyon landfills are located in the City of San Jose, which is part of the Central Subregion, modification of subregional boundaries was necessary.



The Northwest and Central Subregions were combined (CoSWMP Amendment of August 1988) and the City of San Jose eliminated a non-importation policy (September 1988) to enable north county cities to contract for the necessary capacity.

- The Pacheco Pass Landfill Expansion and the opening of Kirby Canyon Landfill in 1986 expanded countywide landfill capacity. With these increases, local capacity exceeds the 1984 CoSWMP goal of 20 years of countywide capacity.

# **CHAPTER IV**

## **STORAGE AND COLLECTION**





## STORAGE

---

The State of California has specific regulations governing the storage and frequency of removal of solid wastes. State standards are listed in Figure IV.1.

All fifteen cities, the County, and two sanitary districts (Burbank and Sunol) have adopted local ordinances regulating storage of solid wastes. See Figure IV.2 for a listing of local ordinances and administering agencies. Local ordinances comply with State standards.

Residential solid wastes are collected at least once a week in all areas served by franchised haulers. The size, type, and number of containers used by the waste generator depends on the service provided by the franchised collection hauler for the local jurisdiction. Subscription to a residential waste collection service is mandatory in the unincorporated areas of the county and in all of the cities.

With the exception of Sunnyvale and Mountain View, all cities enforce non-health related standards pertaining to storage of waste. The County Health Department enforces non-health related standards in Sunnyvale, Mountain View, and the unincorporated areas, and enforces health-related standards throughout the county. See Chapter VIII for details on enforcement programs and agencies.

## LITTER PREVENTION

---

### CITY PROGRAMS

All municipalities within Santa Clara County conduct a variety of litter clean-up and control activities. Several cities use weekend community service crews from the Elmwood Rehabilitation Center in Milpitas to pick-up litter along roads, fences, and in city parks. Some sponsor annual or semi-annual residential clean-up campaigns for removal of miscellaneous rubbish and large bulky items from residential areas.

The cities of Santa Clara and Gilroy are members of the CWMB California Litter Education and Action Network (CLEAN). The City of San Jose is a member of the Keep America Beautiful organization.

All cities have ordinances which prohibit littering and provide penalties for violations. However, litter prevention generally receives a low enforcement priority because budgets are restricted, litterers are difficult to identify and convict, and litter is not considered a major problem in most cities.

Most cities do not have a separate budget for litter clean-up and control. Typically, costs are included in other solid waste management or municipal activities, such as street sweeping or park and landscape maintenance.

FIGURE IV.1 - California Code of Regulations, Title 14, Chapter 3

**17311. General.** The owner, operator and/or occupant of any premise, business establishment, industry, or other property, vacant or occupied, shall be responsible for the safe and sanitary storage of all solid waste accumulated on the property.

**17312. Storage.** (H) In all cases in which garbage and rubbish are combined, the standards for garbage shall prevail. The property owner or occupant shall store solid waste on his premises or property or shall remove it to be stored or handled in such a manner so as not to promote the propagation, harborage, or attraction of vectors, or the creation of nuisances.

**17313. Design Requirements.** The design of any new, substantially remodeled or expanded building or other facility shall provide for proper storage or handling which will accommodate the solid waste loading anticipated and which will allow for efficient and safe waste removal or collection. The design shall demonstrate to local land use and building permit issuing authorities that it includes the required provisions.

**17314. Operator Responsibility.** Where the collection operator furnishes storage containers, he is responsible for maintaining the containers in good condition (ordinary wear and tear excepted) unless they are furnished under other terms, condition, or agreements. He shall plan with the property owner and/or occupant as to placement of storage containers to minimize traffic, aesthetic and other problems both on the property and for the general public.

**17315. Garbage Containers.** (H) Property owners and tenants shall deposit all garbage and putrescible matter or mixed garbage and rubbish in containers which are either non-absorbent, water-tight, vector-resistant, durable, easily cleanable, and designed for safe handling, or in paper or plastic bags having sufficient strength and water tightness and which are designed for the containment of refuse. Containers for garbage and rubbish should be of an adequate size and in sufficient numbers to contain without overflowing, all the refuse that a household or other establishment generates within the designated removal period. Containers when filled shall not exceed reasonable lifting weights for an average physically fit individual except where mechanical loading systems are used. Containers shall be maintained in a clean, sound condition free from putrescible residue.

**17316. Identification of Containers.** Containers of one cubic yard or more owned by the collection service operator shall be identified with the name and telephone number of the agent servicing the container.

**17317. Use of Container.** No person shall tamper with, modify, remove from, or deposit solid wastes in any container which has not been provided for his use, without the permission of the container owner.

FIGURE IV.2 - Storage Ordinances

JURISDICTION	STORAGE ORDINANCE	DEPARTMENT
CAMPBELL	Municipal Code, Chapter 6.04	City Manager's Office, City Fire Department
CUPERTINO	Municipal Code, Chapter 6.24	Public Works Department
GILROY	Municipal Code, Chapter 12	Public Works Department
LOS ALTOS	Municipal Code, Section 5.2.02	Public Works-Engineer
LOS ALTOS HILLS	Municipal Code, Section 6-3.02	Public Works Department
LOS GATOS	Municipal Code, Sections 14-6 to 14-11	Code Enforcement Officer, Planning Department, Central Fire District
MILPITAS	Municipal Code, Title 5, Chapter 200, Section 3	Community Assistance Aide, Community Services Dept.
MONTE SERENO	Municipal Code, Section 6-2.01	City Manager's Office
MORGAN HILL	Municipal Code, Chapter 13.28	City Police, Fire & Health
MOUNTAIN VIEW	Municipal Code, Chapter 16	Finance Dept. Director
PALO ALTO	Municipal Code, Chapter 5.20.040	Public Works Department
SAN JOSE	Municipal Code, Chapter 9.08 hood Preservation	Department of Neighbor-
SANTA CLARA	Municipal Code, Section 13-13	Public Works Department - Street Department
SARATOGA	Municipal Code, Article 7-05	Community Services Dept.
SUNNYVALE	Municipal Code, Chapter 8.16	Public Works Department, Community Development
UNINCORPORATED	Ordinance # B11-66 to B11-70	County Health Department



Figure IV.3 lists administering agencies, local ordinances, and litter programs by jurisdiction.

## OTHER LITTER CLEAN-UP ACTIVITIES

In unincorporated areas, the County Transportation Agency removes litter from County roads through regular clean-up of fences, medians, and roadsides. Litter bins are provided at bus shelters throughout the county and are serviced by cities or the Transportation Agency.

The County Parks and Recreation Department controls litter in County parks and recreation areas. Activities consist of regular servicing of litter receptacles and occasional clean-up programs.

The California Transportation Agency (CALTRANS) performs continuous clean-up on State and Federal highways. The State Parks and Recreation Department regularly services litter receptacles in Henry Coe State Park.

## COUNTYWIDE PROGRAM

At present, there is no coordinated countywide litter abatement program. In the past, litter clean-up activities have been coordinated only during Resource Rally events. During the implementation of this Plan Revision, need for an ongoing assistance program to help local jurisdictions develop effective litter control measures and clean-up programs will be evaluated.

## COLLECTION

---

Collection is defined as *"the act of collecting solid waste at the place of waste generation by an approved collection agent (public or private) and is distinguished from removal"* (California Code of Regulations, section 17224.10). Sections 17331 to 17345 of the California Code of Regulations, see Figure IV.4, specify requirements for waste collection.

Many collection companies operating in the county started as local family-owned businesses and have served the same community for a number of years. NORCAL, the parent company of several local collection and disposal companies, is one of the largest waste management companies headquartered in California. Two collection companies, Browning-Ferris Industries (BFI) and Waste Management, Incorporated (WMI), are the two largest waste management companies in the nation.

FIGURE IV.3 - Municipal Litter Cleanup and Control Activities

JURISDICTION	ADMINISTERING AGENCY	MUNICIPAL CODE ORDINANCE	ACTIVITIES						
			A	B	C	D	E	F	G
Campbell	Public Works Department	Section 13.04.110	☆	☆	☆	☆	☆	☆	☆
Cupertino	Public Works Department	Chapter 6.24	☆	☆	☆	☆	☆	☆	☆
Gilroy	Public Works Department	Chapter 12	☆	☆			☆		
Los Altos	City Planning Department	Section 5.2.06	☆	☆		☆	☆		
Los Altos Hills	Public Works Department	Section 5-1.02 D&MN				☆	☆		
Los Gatos	Public Works Department	Section 14-6,14-10, and 10-11	☆	☆		☆			
Milpitas	Community Services Department	Chapter 200, Section 8.01	☆	☆				☆	
Monte Sereno	City Manager's Office	Section 6-2.10				☆	☆		
Morgan Hill	Public Works Department	Chapter 8.16	☆	☆			☆		
Mountain View	Finance, Utilities and Police Departments	Sections 16.5, 16.7, 25.4 Chapter 39	☆	☆		☆		☆	☆
Palo Alto	Public Works Department	Chapters 5 and 12	☆	☆	☆	☆	☆		
San Jose	Neighborhood Maintenance Department	Section 9.08.360	☆	☆	☆	☆		☆	☆
Santa Clara	Public Works Department	Sections 13-13 and 25-40	☆	☆	☆	☆	☆	☆	☆
Saratoga	Department of Community Services	Sections 10-05.01 through 10-05.04	☆	☆		☆		☆	
Sunnyvale	Public Works Department	Section 8.04.060	☆	☆			☆		☆

ACTIVITIES:

- A = Litter Receptacles
- B = Street Sweeping/Road Cleanup
- C = Leaf Clean-up
- D = Special Rubbish Pick-up
- E = Litter Pick-up Crews
- F = Abandoned Vehicle Program
- G = Anti-Graffiti Program

## FIGURE IV-4 - California Code of Regulations, Title 14, Chapter 3, Article 5

**17331. (H). Frequency of Refuse Removal.** The owner or tenant of any premises, business establishment or industry shall be responsible for the satisfactory removal of all refuse accumulated by him on his property or his premises. To prevent propagation, harborage, or attraction of flies, rodents, or other vectors and the creation of nuisances, refuse, except for inert materials, refuse shall not be allowed to remain on the premises for more than seven days, except when:

- (a) disruptions due to strikes occur, or
- (b) severe weather conditions or "Acts of God" make collection impossible using normal collection equipment, or
- (c) official holidays interrupt the normal seven day collection cycle in which case collection may be postponed until the next working day. Where it is deemed necessary by the local health officer because of the propagation of vectors and for the protection of public health, more frequent removal of refuse shall be required.

**17332. Regulation of Operators.** Each person providing residential, commercial, or industrial solid waste collection services shall comply with all local government licenses, permits or written approval requirements applicable to the city or county in which such services are provided. Such written approval shall be contingent upon the operator's demonstrated capacity to comply with these standards and use of equipment which is safe and sanitary. Each enforcement agency of solid waste collection shall maintain a complete listing of all persons holding written approvals to provide solid waste collection services within its jurisdiction. The listing shall contain the name, office, address, telephone number and emergency telephone number (if different) of each such person, the number and types of vehicles employed by such person in providing such solid waste collection services, and the types of materials authorized for handling.

**17333. Operator Qualifications.** When a city, county, or special district authorizes or designates a person or firm to provide solid waste collection services within the territory under its jurisdiction through contract, franchise, permit, or license, the local government shall obtain proof that such person or firm has adequate financial resources and experience to properly conduct the operation authorized. The facts needed to establish proof shall include but not be limited to the following:

- (a) The filing of a performance bond or equivalent security with the local government in a reasonable amount, together with
- (b) Evidence submitted to the local government and to the enforcement agency that the person or firm has experience sufficient to meet the needs of the situation within the jurisdiction.

**17334. Ownership of Waste Materials.** Solid wastes subject to collection by a collection service operator shall become the property of the collection service operator subject to local ordinances or contract conditions after such time as the authorized collector takes possession of the wastes.

**17341. Equipment Construction. (H).** All equipment used for the collection and/or transportation of solid waste shall be durable, easily cleanable and designed for safe handling, and constructed to prevent loss of wastes from the equipment during collection or transportation. If such equipment is used to collect or transport garbage, either wet or liquid producing wastes, or wastes composed of fine particles, such equipment shall in all cases be non-absorbent and leak resistant. All equipment shall be maintained in good condition and cleaned in a frequency and in a manner so as to prevent the propagation or attraction of flies, rodents, or other vectors and the creation of nuisances.

**17342. Equipment Safety. (H)** Vehicles and equipment used in the transport of garbage and rubbish shall be constructed and maintained in such a manner as to minimize the health and safety hazards to collection personnel and the public.

**17343. Equipment Parking.** A refuse collection service operator must designate an off-street location where all refuse collection vehicles will be parked when not in service, except in an emergency.

**17344. Identification of operator.** Each vehicle used for the collection and transport of refuse shall be clearly marked with the name of the agency or firm operating the vehicle.

**17345. Inspection of Equipment. (H)** Equipment used for solid waste collection shall be made available for inspection as requested by the appropriate Enforcement Agency.



Waste collection services are offered in all developed areas of Santa Clara County. Figure IV.5 lists residential waste haulers, jurisdictions served, and other information on residential collection services.

## COLLECTION AGREEMENTS AND PERMITS

Collection services are regulated by franchise agreement, license, permit, or other written approval agreement between a local government agency and a waste collection company. The level and type of service specified in a collection agreement is determined by the preferences of the community served and the collector's abilities.

In most jurisdictions, collection of commercial and industrial waste is handled under the same collection agreement as residential waste. However, in the City of San Jose, commercial businesses may contract separately for rubbish collection services. Industrial zoned businesses in the City of Santa Clara may contract with a number of approved haulers.

Unincorporated areas of the county are divided into seven collection districts. BFI holds a franchise for pick-up in one district; collection in other districts is regulated by resolutions adopted by the Board of Supervisors and permits issued by the County Health Department.

The County Health Department issues two types of collection permits for unincorporated areas:

1. Refuse Collector Permits are required for haulers collecting garbage and rubbish in defined service areas.
2. Limited Collector Permits, specifying the type of waste to be collected, are required for haulers collecting rubbish or food processing wastes. These permits do not limit the service area.

## LEVELS OF SERVICE

Weekly residential collection services are provided in all communities. Only the unincorporated Stanford area offers collection twice a week.

Residential wastes are collected at the curb or from backyards. Most jurisdictions provide curbside service, which is generally considered the most cost-effective type of collection. Curbside collection of recyclable materials is available in most local cities and in some unincorporated areas. See Chapter IV for details on recycling.

Contract services provided to multifamily, commercial, institutional, and industrial buildings are based on the rate of waste generation, the percentage of garbage contained within the refuse mix, and the number and sizes of

FIGURE IV.5 - Typical Residential Collection Service \*

JURISDICTION	COLLECTOR	RATE / MONTH	TYPICAL SERVICE	AGREEMENT INFORMATION
CAMPBELL	Green Valley Disposal Co.	\$ 6.50	Unlimited curb	expires 2003 - 20 year contract
CUPERTINO	Los Altos Garbage	\$ 6.95	2 cans - front yard	expires 2000 - 10 year contract
GILROY	South Valley Refuse Disposal	\$ 8.50	Unlimited - curb	expires 2004 - 19 year contract
LOS ALTOS	Los Altos Garbage Company	\$12.43	2 cans - back yard	expires 2002 - 20 year contract
LOS ALTOS HILLS	Los Altos Garbage Company	\$15.85	2 cans - 100' off road	expires 1992 - 15 year contract
LOS GATOS	Green Valley Disposal Co.	\$ 7.15	2 cans - curb	expires 2003 - 20 year contract
MILPITAS	Browning-Ferris Industries	\$ 7.39	Unlimited - curb	expires 2007 - 21 year contract
MONTE SERENO	Green Valley Disposal Co.	\$16.90	Unlimited - curb	expires 2003 - 20 year contract
MORGAN HILL	South Valley Refuse Disposal	\$ 8.50	Unlimited - curb	expires 2006 - 21 year contract
MOUNTAIN VIEW	Foothill Disposal Company	\$ 6.28	Unlimited - curb	no expiration - indefinite contract
PALO ALTO	Palo Alto Sanitation Company	\$12.10	2 cans - back yard Unlimited - curb	expires 1992 - 5 year contract " " " "
SAN JOSE	Waste Management Inc.	\$ 6.31	Unlimited - curb	expires 1992 - 6 year contract
SANTA CLARA	Mission Trails Garbage Co. City of Santa Clara (rubbish only)	\$ 5.88 \$ 0.45	2 cans - back yard Unlimited - curb	expires 1996 - 13 year contract service provided by city
SARATOGA	Green Valley Disposal Co.	\$12.81	Unlimited - flatland curb	expires 2003 - 20 year contract
STANFORD	Peninsula Sanitation Co.	\$15.04	Metered - back yard 1 can - twice a week	expires 1993 - 6 year contract " " " "
SUNNYVALE	Specialty Garbage	\$ 8.09	Unlimited - curb	expires 1990 - 15 year contract
UNINCORPORATED**	Browning-Ferris Industries Lexington Hills Disposal Co.	\$ 7.06 \$16.30	Unlimited - curb 2 cans - front yard	expires 1991 - 5 year contract no expiration date

\* Information shown represent typical collection services as of December 1988. Other services and rates may apply within the same jurisdiction.

\*\* Unincorporated areas adjacent to incorporated cities are typically serviced by the same collection company as the city. Unincorporated areas covered under separate agreements include portions of the unincorporated county surrounding San Jose and Milpitas (BFI), and the Lexington Hills area.

containers that can be accommodated on the premises. Wastes are usually collected at a centrally designated location, to provide ease of access for collection vehicles. See Figure IV.6 for details on Commercial/Industrial collection services.

## COLLECTION RATES AND COST OF COLLECTION

Collection rates vary widely among local communities. In addition to collection and disposal costs, rates often include funding for disposal monitoring, taxes, city solid waste planning, recycling programs, enforcement programs, and (in some communities) street sweeping.

The cost of collection in each community reflects the type of service provided and is influenced by

- Amount of commercial/industrial development in the community,
- Frequency of collection,
- Limitations on number of containers to be collected each week,
- Terrain of the collection area,
- Housing density in the collection area, and
- Disposal costs, which are influenced by such factors as ownership of a disposal site (public vs. private), the location of the disposal site, and the price paid per ton to dispose of collected loads (tipping fees).

Some cities vary residential refuse collection rates based on collection costs. This sometimes results in higher fees for "hard to service" areas, such as hillside neighborhoods in the cities of Saratoga, Monte Sereno, and Los Altos, the Town of Los Altos Hills, and the unincorporated Stanford area.

The level of commercial and industrial development in a community can also affect collection rates for residential services. Cities with a large commercial/industrial base often reduce costs to residential customers by subsidizing service costs from commercial and industrial rates. Communities which have little or no commercial development typically charge higher rates for residential collection.

Rates for collection services to commercial and industrial enterprises vary according to a firm's collection requirements, and are generally based on the level and frequency of service needed and the location of the waste generator.



FIGURE IV.6 - Typical Commercial and Industrial Bin Service \*

JURISDICTION	COLLECTION COMPANY	SERVICE	RATES
CAMPBELL	Green Valley Disposal Company	3 yards once a week	\$ 88.15
CUPERTINO	Los Altos Garbage Company	3 yards once a week	\$ 86.05
GILROY	South Valley Refuse Disposal	3 yards once a week	\$ 86.20
LOS ALTOS	Los Altos Garbage Company	3 yards once a week	\$112.06
LOS ALTOS HILLS	Los Altos Garbage Company	3 yards once a week	\$116.95
LOS GATOS	Green Valley Disposal Company	3 yards once a week	\$ 88.15
MILPITAS	Browning-Ferris Industries	3 yards once a week	\$ 78.93
MONTE SERENO	None	None	None
MORGAN HILL	South Valley Refuse Disposal	3 yards once a week	\$109.80
MOUNTAIN VIEW	Foothill Disposal Company	3 yards once a week	\$ 76.14
PALO ALTO	Palo Alto Sanitation Company	3 yards once a week	\$ 85.95
SAN JOSE **	Waste Management, Inc.	3 yards once a week	\$ 76.28
SANTA CLARA	Mission Trail Garbage Company	3 yards once a week	\$ 54.55
SARATOGA	Green Valley Disposal Company	3 yards once a week	\$ 98.50
STANFORD	Peninsula Sanitation Company	3 yards once a week	\$ 56.29
SUNNYVALE	Specialty Garbage & Refuse Co.	3 yards once a week	\$ 97.20
UNINCORPORATED	Browning-Ferris Ind. (serves portions of San Jose and Milpitas sphere-of-influence)	3 yards once a week	\$112.45

\* Information shown represents typical collection services as of December 1988. Other services levels and rates may apply.

\*\* Because commercial and industrial rubbish is not franchised within the City of San Jose, various haulers compete for collection contracts to serve individual businesses, resulting in different commercial rates. However, commercial and industrial garbage (with a minimum of 15% food waste) is collected under an exclusive collection agreement with WMI.

## COLLECTION VEHICLES

Collection vehicles differ according to the type, amount, and location of the waste to be collected:

*Rear or Side-Loader Vehicles* collect from each single family detached dwelling unit.

*Front-Loader Vehicles* collect wastes from small bins (three to six cubic yards of capacity). Multi-unit dwellings (condominiums and apartments) and small commercial and industrial establishments are generally serviced by front loader vehicles.

*Front-Loader Containers and Debris Boxes*, collected on roll-off trucks, serve large commercial and industrial enterprises. In some areas, debris boxes may also be requested by residential and commercial customers for the disposal of large, one-time amounts of demolition, construction, and/or agricultural wastes.

## HAUL ROUTES

Haul routes used by collection companies are, for the most part, major commercial truck routes and/or freeways, see Figure IV.7. Haul routes include

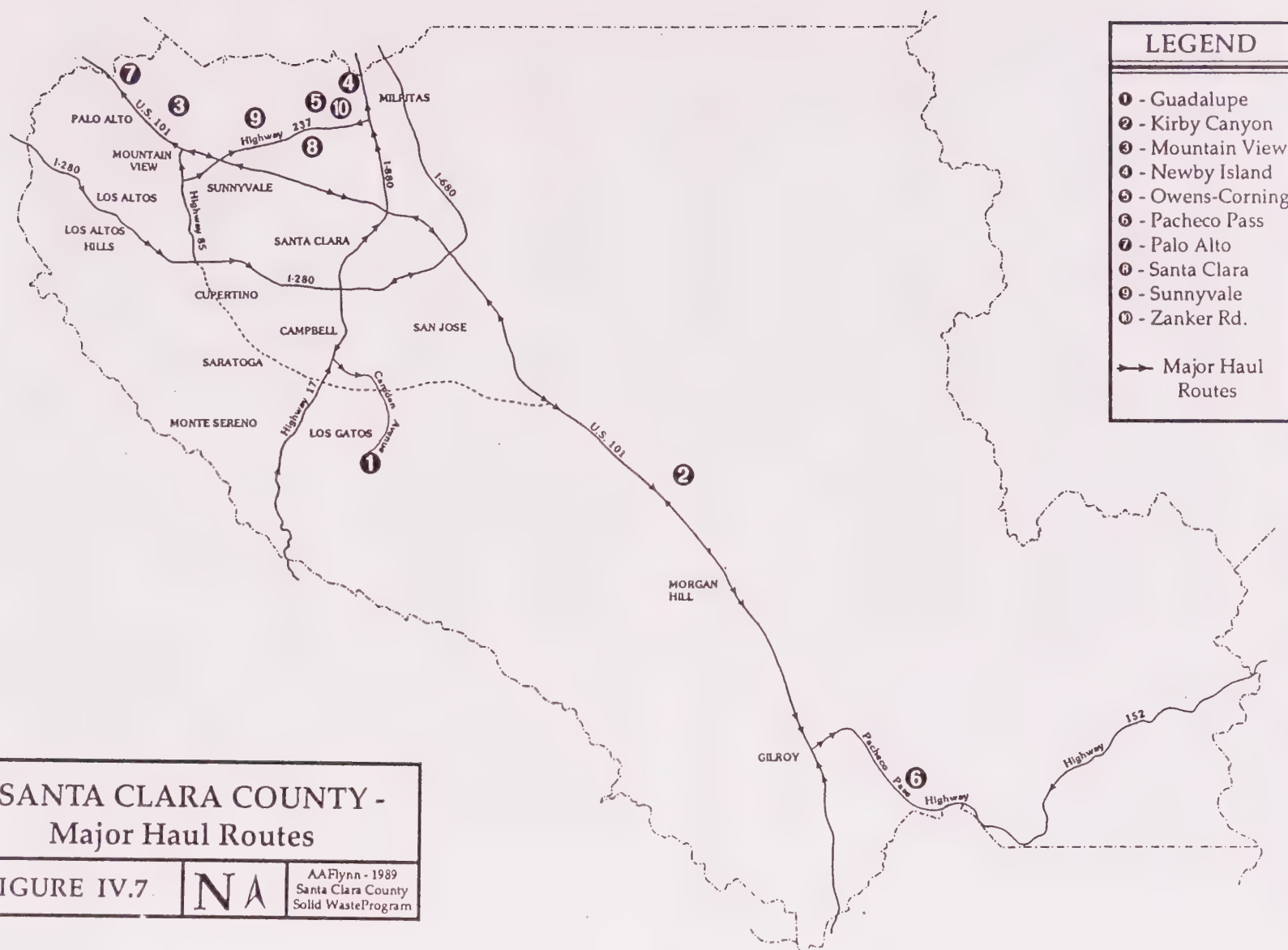
*U.S. Highway 101 (north and south)*, which serves as a direct haul route to the Kirby Canyon Landfill in south San Jose, and the Mountain View and Palo Alto Landfills in the north county area. It also serves as an indirect route for several other landfills in the county.

*Interstate 880 north*, which serves as a direct haul route to the Newby Island Landfill in north county, and an indirect haul route to the Zanker Road and Owens Corning facilities, also in north county.

*Highway 17 south and Camden Avenue*, which serve as direct haul routes to the Guadalupe Landfill.

*State Highway 237*, which serves as a direct haul route to the Sunnyvale and All Purpose (Santa Clara) Landfills, and an indirect route to the Newby Island, Zanker Road, and Owens Corning Landfills.

*State Highway 152 east (Pacheco Pass Highway)*, which serves as a direct haul route to the Pacheco Pass Landfill in south county.



LEGEND	
①	- Guadalupe
②	- Kirby Canyon
③	- Mountain View
④	- Newby Island
⑤	- Owens-Corning
⑥	- Pacheco Pass
⑦	- Palo Alto
⑧	- Santa Clara
⑨	- Sunnyvale
⑩	- Zanker Rd.
➔ Major Haul Routes	

- SANTA CLARA COUNTY - Major Haul Routes		
FIGURE IV.7	N A	AAFlynn - 1989 Santa Clara County Solid Waste Program

IV-12

Printed on recycled paper



In addition to existing roadways, State Highway 85 south of Interstate 280 will soon be completed. Although the highway will restrict truck traffic, service vehicles (such as collection trucks) will be able to service areas located along the highway. Collection vehicles not servicing the area will be restricted from using this segment of the highway.

Specific access roads to each site are outlined in each facility's descriptions in Chapter V.



# **CHAPTER V**

## **DISPOSAL AND FACILITIES**





## DISPOSAL

---

### DISPOSAL IN SANTA CLARA COUNTY

Prior to 1956, the feeding of household garbage to hogs and burning of organic and combustible materials were the prevalent methods of disposal in Santa Clara County. In 1956, the County Board of Supervisors adopted an ordinance prohibiting these forms of solid waste disposal. Gradually, the open burning dumps were converted into sanitary landfills, where refuse and municipal solid waste were compacted and regularly covered.

Between 1975 and 1984, six of the fourteen landfills within Santa Clara County ceased operation, and only one, the Kirby Canyon Landfill in South San Jose, has been approved and developed.

In 1988, actions taken by regulatory agencies resulted in unanticipated reductions in countywide disposal capacity:

- In 1984, the City of Mountain View purchased a 70-acre landfill site adjacent to the City landfill, to expand disposal capacity of the existing facility. In 1988, due to permitting difficulties and encroaching residential development, the CWMB ordered the City to cease operations at the 70-acre site.
- In 1985, the Pacheco Pass Landfill, located in south county, received the necessary approvals for a 60-acre expansion. In 1988, the Regional Water Quality Control Board issued waste discharge requirements for only 1/3 the expansion due to the discovery of a hairline earthquake fault running through the expansion site. The remaining 2/3 of the expansion site will be used for disposal of inert solid wastes.

At present, two facilities are exploring the potential for site expansion:

- The Guadalupe Rubbish Disposal Company is currently seeking an expansion of the Guadalupe Landfill.
- Waste Management, Inc. (WMI) is exploring the feasibility of expanding the Kirby Canyon Landfill.

### EXISTING DISPOSAL CAPACITY

#### Capacity Goals

The 1984 CoSWMP Revision identified insufficient long-term (20 years) disposal capacity as the most important solid waste problem facing communities in Santa Clara County. Implementation measures for that Plan were designed to provide information critical to landfill capacity planning

and thus facilitate the process of finding solutions to long-term capacity problems. The CoSWMP goal was achieved with the Pacheco Pass Landfill Expansion and the opening of Kirby Canyon Landfill. This expanded landfill capacity in Santa Clara County beyond the targeted 20 years.

The goal for this Revision is to maintain 30 years of ongoing disposal capacity. Remaining life of existing landfills will be increased through source reduction, recycling, composting, and transformation of wastes. This goal reflects the "Integrated Waste Management Hierarchy," adopted by the State Legislature in late 1989, and defined as

**Source Reduction:** Any change in the life cycle of a product (design, manufacturing, packaging, retailing, or consumption) which decreases its volume and toxicity and/or increases its useful life, thus reducing volumes of waste generated.

**Recycling:** Any activity which recovers materials from the waste stream for re-manufacturing into new products; and

**Composting:** The controlled biological decomposition of the organic fraction of solid waste into humus for use as a soil amendment, mulch, or other related application.

**Transformation:** Processes which result in a change in phase (i.e. solid, liquid, gas) of wastes, including composting of mixed municipal solid waste. Thermal waste transformation processes include incineration, pyrolysis, and gasification. Biological and chemical waste transformation processes include digestion, fermentation, and ethanol and methanol fuel production.

**Landfilling:** Disposal to land of collected wastes which are of no further use.

Using this Hierarchy as a planning tool, expanding the planning horizon to 50 years and establishing a countywide integrated waste management goal will be explored during the implementation of this Plan Revision (see Chapter II).

### Countywide Capacity

Government Code section 66780.2 states that the CoSWMP "*shall indicate the remaining combined capacity of existing solid waste facilities, in cubic yards and years, to accept solid waste generated in the county.*"

As of July 1, 1988, total remaining disposal capacity countywide was 52,899,043 tons or 74,299,176 cubic yards. Figure V.1 presents information on each landfill. This total does not include expansions at the Palo Alto Landfill (0.8 million tons as approved), the Guadalupe Landfill (3.6 million tons as



FIGURE V.1 - Disposal Capacity

OPERATING LANDFILL	POTENTIAL EXPANSION	REMAINING LANDFILL CAPACITY - 7/1/88		AMOUNT LAND- FILLED (FY 87-88)
		Cubic Yards	Tons	
GUADALUPE	3,630,000 tons	2,000,000 cubic yards	1,170,000 tons	227,196 tons/year
KIRBY	13,000,000 tons	36,000,000 cubic yards	24,126,877 tons	99,022 tons/year
MNT. VIEW	None	250,000 cubic yards	150,000 tons	297,014 tons/year
NEWBY	To Be Determined	27,609,700 cubic yards	22,501,906 tons	695,000 tons/year
PACHECO	None	2,333,000 cubic yards	1,400,000 tons	78,198 tons/year
PALO ALTO	775,619 tons	1,083,476 cubic yards	595,912 tons	81,284 tons/year
SANTA CLARA	None	1,350,000 cubic yards	810,565 tons	209,435 tons/year
SUNNYVALE	None	2,473,000 cubic yards	1,360,150 ton	52,656 tons/year
ZANKER RD.	None	1,200,000 cubic yards	784,133 tons	71,867 tons/year
<b>TOTALS</b>	<b>17,405,619 tons</b>	<b>74,299,176 cubic yards</b>	<b>52,899,543 tons</b>	<b>1,811,672 tons/year</b>

proposed), and the Kirby Canyon Landfill (13 million tons as proposed). The figure does reflect the height expansion at the Sunnyvale Landfill and a recalculation of capacity at the Newby Island Landfill based on new data developed in Fall of 1988.

Annual volume of wastes disposed in landfills has decreased over the past few years, from 2,020,487 tons in 1986, to 2,006,586 tons in 1987, to 1,811,672 tons in 1988.

Based on the current rate of fill (1,811,672 tons per year), the county has approximately 29 years of remaining disposal capacity. Using an annual 1.1 % growth rate for wastes landfilled within Santa Clara County (based on ABAG population estimates for the San Francisco Bay Area), approximately 24 years of remaining disposal capacity countywide are projected. A 25% reduction of wastes landfilled by 1995 will extend countywide disposal capacity to 32 years. This is based on a 1.1% annual growth rate and a 1987-88 recycling rate of 16% (see Figure V.2). For more information on resource recovery, see Chapter VI.

### Disposal Contracts

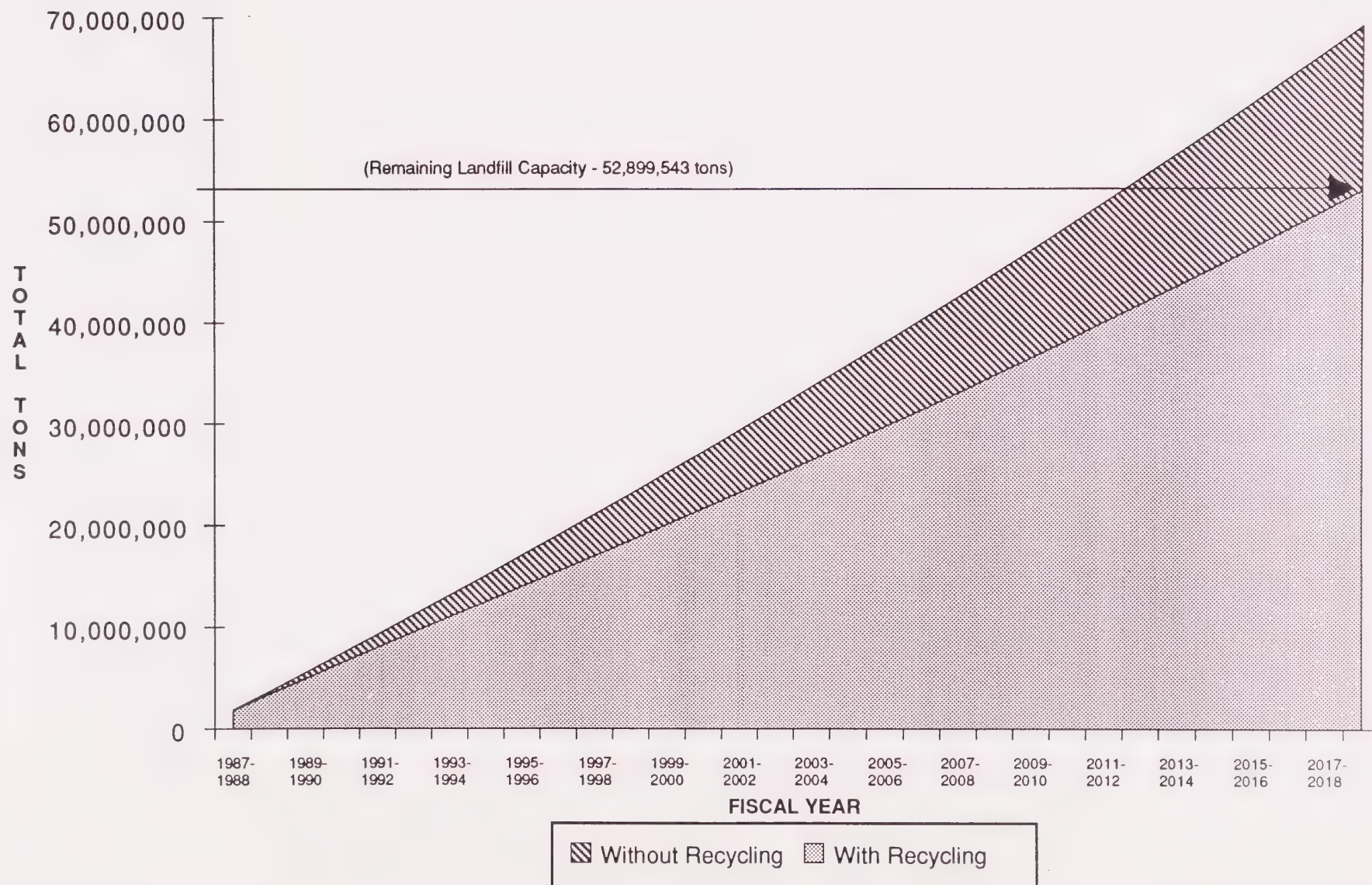
All jurisdictions in Santa Clara County have contracted for long-term landfill capacity (see Figure V.3).

In September of 1987, the Northwestern Area cities and the City of Santa Clara approved a Memorandum of Understanding to issue a collective Request for Proposals for long-term landfill disposal capacity. Proposals were received from BFI, WMI, Christina and Hall (development of a new landfill facility), and Zanker Road. After review, the cities elected to contract with either BFI (Newby Island Landfill) or WMI (Kirby Canyon Landfill).

Because both the Newby Island and Kirby Canyon landfills were located in the Central Area, contracting with either firm required an amendment to the 1984 CoSWMP and removal of the City of San Jose's non-importation policy. In August 1988, the Subregional Policy Amendment was adopted combining the Northwest and Central Subregional Areas. In September, the City of San Jose lifted its ban on waste importation.

As a result, the cities of Mountain View, Palo Alto, and Sunnyvale, and the unincorporated Stanford area have signed letters of intent to contract with WMI to dispose of their waste at the Kirby Canyon Landfill. As part of the disposal agreement, WMI will develop a transfer station at the Sunnyvale Landfill. The station is anticipated to be on-line by spring of 1991. As proposed, the Sunnyvale Materials Recovery and Transfer Station will serve as a transfer and drop-off point for wastes to be disposed of at Kirby Canyon (see Future Facilities, page V-6). Until the completion of the station, the cities of Palo Alto and Sunnyvale have adequate disposal capacity at their municipal landfills, and the City of Mountain View has contracted

FIGURE V.2 - Total Amount Landfilled (1987-2019) Based on a 1.1% Growth Rate





with BFI for disposal at the Newby Island Landfill.

The City of San Jose has a 30-year disposal contract with BFI to dispose of its waste at the Newby Island Landfill. Under the agreement, the City's contracted collector (currently WMI) may dispose of up to 395,200 tons per year of municipal solid waste, and City departments may dispose of up to 60,000 tons per year of city-generated waste. Any excess waste is disposed of at the Kirby Canyon Landfill, owned by WMI.

The City of Milpitas has a disposal contract with BFI for the use of the Newby Island Landfill. The cities of Cupertino, Los Altos, and Santa Clara, and the Town of Los Altos Hills have recently agreed to long-term (30-year) disposal contracts with BFI for disposal at Newby Island Landfill. With the exception of Santa Clara, these cities started disposing of waste at the landfill in November 1988. The City of Santa Clara began disposing of some of its franchised waste at Newby Island Landfill in April 1988. However, the City will continue to use the City-owned All Purpose Landfill until its projected closure in 1992.

The cities of Gilroy and Morgan Hill have disposal agreements with the Pacheco Pass Landfill owner, South Valley Refuse. The cities of Campbell, Monte Sereno, and Saratoga, and the Town of Los Gatos have disposal agreements through Guadalupe Rubbish Disposal Company to dispose of waste at the Guadalupe Landfill.

For disposal of wastes generated in the unincorporated areas, the County has contracted with the landfill serving the nearest local municipality.

## **FUTURE CONSIDERATIONS**

### **Requirement for Eight Year Disposal Capacity**

The California Government Code (Title 7.3, Section 66780.2) states that county plan revisions shall reserve sites for the location of new or expanded solid waste facilities only if the remaining combined capacity of existing solid waste facilities will be exhausted within eight years. As indicated above, Santa Clara county has between 24 and 32 years of combined landfill disposal capacity, and, therefore, need not reserve any areas for future solid waste facility sites.

### **Planning for Future Facilities**

State requirements address the planning process for new and expanded facilities, providing in part that

*Decisions involving the establishment or expansion of solid waste facilities should be guided by an effective planning process, including*

FIGURE V.3 - Current Disposal Contracts

CONTRACTING		DISPOSAL AGREEMENT INFORMATION		
JURISDICTION		LANDFILL	OWNER	ENDING DATE
CAMPBELL		Guadalupe	Guadalupe Disposal	2003
CUPERTINO		Newby Island	Browning-Ferris Industries	2018
GILROY		Pacheco Pass	South Valley Refuse	2004
LOS ALTOS		Newby Island	Browning-Ferris Industries	2018
LOS ALTOS HILLS		Newby Island	Browning-Ferris Industries	2018
LOS GATOS		Guadalupe	Guadalupe Disposal	2003
MILPITAS		Newby Island	Browning-Ferris Industries	2007
MORGAN HILL		Pacheco Pass	South Valley Refuse	2006
MOUNTAIN VIEW		(currently)	Newby Island	Browning-
Ferris Industries	1991 (future)	Kirby Canyon	Waste Management Inc.	2026
PALO ALTO	(currently) (future)	Palo Alto Kirby Canyon	City of Palo Alto Waste Management Inc.	1999 2026
SAN JOSE		Newby Island	Browning-Ferris Industries	2016
SANTA CLARA	(currently) (future)	All Purpose Newby Island	City of Santa Clara Browning-Ferris Industries	1992 2019
SARATOGA		Guadalupe	Guadalupe Disposal	2003
STANFORD	(currently) (future)	Palo Alto Kirby Canyon	City of Palo Alto Waste Management Inc.	1991 2026
SUNNYVALE	(currently) (future)	Sunnyvale Kirby Canyon	City of Sunnyvale Waste Management Inc.	1991 2026

*meaningful public and private solid waste industry participation.*

The section goes on to state that, in the interest of providing effective planning,

*solid waste management plans shall accomplish both of the following: (1) Identify and reserve areas for the establishment or expansion of solid waste facilities. (2) Ensure that land uses adjacent to or near those areas are compatible with solid waste facilities. (California Government Code, Section 66780).*

*A county shall reserve an area or areas for the location of a new solid waste facility or the expansion of an existing facility in its solid waste management plan which is consistent with the applicable city or county general plan. (California Government Code, Section 66780.2).*

*The CoSWMP shall identify proposed facilities and include information such as type of operation, location, types, sources and quantities of wastes to be received and the facility size or capacity. (The California Code of Regulations, Title 14, Section 17134 ).*

To facilitate effective planning for future solid waste facilities countywide, this plan identifies Proposed Solid Waste Facilities Sites (see pages V-38). All proposed sites have specific project proposals, and each project is consistent with the general plan of the jurisdiction in which the site is located.

### **Adding Proposed Facilities to the CoSWMP**

Proposed solid waste facilities or facility expansions may be added to the CoSWMP only upon the request of the local jurisdiction (the lead agency) in which the site is located. Proposed facilities or facility expansions may be added to the CoSWMP in two ways:

1. Proposed facilities may be incorporated in the Plan at the time of a plan revision; or
2. The Plan may be amended to incorporate proposed facilities.

To add a facility to the CoSWMP, the lead agency must submit the following information to the County Solid Waste Program:

- Demonstration of consistency with the applicable County or city general plan (California Government Code, Section 66780.2),
- Identity of project proponent, owner, and operator,
- Description of project location,



- Project timeline including (if appropriate) projected dates for construction start and completion, facility start-up, planned or potential site expansions, and facility closure,
- Project design capacity and/or acreage (as appropriate),
- Description of waste material to be handled,
- Identification of waste sources,
- Projection of waste quantities to be handled,
- Identification of waste transport corridors and destination,
- Technology to be used in the development and operation of the site,
- Planned site classification (landfills),
- Planned end use(s) of the site (landfills),
- A discussion on resource recovery alternatives as outlined in Title 14, CCR, Section 17134,
- Planned market(s) for materials and/or energy recovered from resource recovery operations on site, and
- Any completed CEQA documentation.

Once the required information has been received, County staff will prepare a plan amendment or incorporate the information into a CoSWMP Revision. A plan revision or amendment must be approved by the County Board of Supervisors, a majority of the cities in the county with a majority of the incorporated population, and the California Waste Management Board (California Government Code, Section 66780.5 and Title 14, and California Code of Regulations, Sections 17147, 17150 and 17153). Approved amendments become part of the CoSWMP and are formally incorporated into the CoSWMP document during the next revision.

### **Importation of Out-of-County Waste**

In August 1988, the Santa Clara County CoSWMP was amended to establish a procedure for the review of requests for importation of nonhazardous solid wastes generated outside of the county. In general, the Importation Amendment specifies that out-of-county wastes can be accepted for disposal only if such disposal is specifically authorized by an amendment to the CoSWMP.

Solid waste facilities located within the county may not accept for disposal any solid waste generated outside the county that is not described in the CoSWMP. Acceptance of unauthorized wastes by a facility would be grounds for a determination of nonconformance with the Plan. Enforcement of this requirement lies with each facility's Local Enforcement Agency for non-health related matters.

An importation proposal must be authorized by the jurisdiction in which the accepting site is located. The jurisdiction would submit the proposal and documentation to the County Solid Waste Program staff for review. County staff would draft an amendment to the CoSWMP outlining the request, and circulate the amendment with appropriate CEQA documentation for approval.

Exemptions from importation requirements were granted to out-of-county jurisdictions that were disposing of non-hazardous waste at local facilities at the time the Importation Amendment was approved. Exempted jurisdictions include the communities of Woodside (not to exceed 5000 tons per year), Portola Valley (not to exceed 5000 tons per year), and Stanford University property in San Mateo County (not to exceed 5000 tons per year). Annually, each community must provide the County Solid Waste Management Program with information specified in applications for importation. Such information must be provided by both the generating community and the accepting solid waste facility.

## **SOLID WASTE FACILITIES**

---

This section describes existing, proposed, and inactive solid waste facilities within Santa Clara County. These descriptions are "snap-shots" in time. They are intended to provide general information for planning purposes, and are not used for determinations of conformance with the CoSWMP. Evaluating conformance of an existing solid waste facility with this Plan involves using the Solid Waste Facility Permits for each facility (incorporated into this CoSWMP by reference) and the Goals and Policies of the CoSWMP. Non-permitted and proposed facilities will be evaluated based on the facility's description in this Plan until a Facilities Permit for the site is approved.

## **WASTE SOURCES**

Solid waste facilities receive wastes from three sources:

1. ***Collection Companies:*** Collect and dispose of residential and commercial/industrial wastes, usually under city collection agreements.

2. **Individual Contractors and Municipal Haulers:** Dispose of a variety of wastes including construction and landscaping debris, street-sweeping waste, and waste from municipal clean-up activities.
3. **General Public:** Dispose of miscellaneous residential wastes generated at a single residence by the resident.

## FACILITY DEFINITIONS AND CLASSIFICATIONS

The State Water Resources Control Board has determined classifications for waste management facilities, including landfills, waste piles, and surface impoundments. Classification of facilities is based on a site's ability to contain specified wastes and protect water quality. The California Code of Regulations, Title 23, sections 2530 through 2533, specifically outlines requirements for each site classification. For ease of reference, a summary of these classifications follows:

**Class I:** Facilities designated Class I are the only sites which can accept hazardous wastes, liquid, solid, or dry. Facilities must provide full containment in the form of a double liner. Class I facilities may also accept designated, nonhazardous solid, and inert wastes. This classification covers sites previously designated Class I or Class II-1, or sites used for the treatment or storage of hazardous wastes.

**Class II:** Facilities designated Class II may accept designated, nonhazardous solid, and inert wastes. Facilities must provide full containment with at least a single liner. The Class II designation may apply to sites approved as Class I, limited Class I, or Class II-1 under previous regulations.

**Class III:** Facilities designated Class III can accept only nonhazardous solid or inert wastes, including dewatered sludge and acceptable incinerator ash. This designation replaces the previous site classification of Class II-2. Sites are required to have a single liner only if site characteristics alone do not ensure groundwater protection. All solid waste facilities located in Santa Clara County are classified as Class III sites.

Three categories of solid waste facilities are described in sections below:

**Existing Solid Waste Facility:** An operating solid waste facility which has been granted all necessary local land use approvals and a solid waste facility permit; or a Proposed Solid Waste Facility which has been included in the CoSWMP, granted all necessary local land use approvals, a solid waste facility permit, and has received the necessary environmental review.



***Non-Permitted Existing Solid Waste Facility:*** A solid waste facility currently in operation which has not received all local land use approvals and/or a solid waste facility permit.

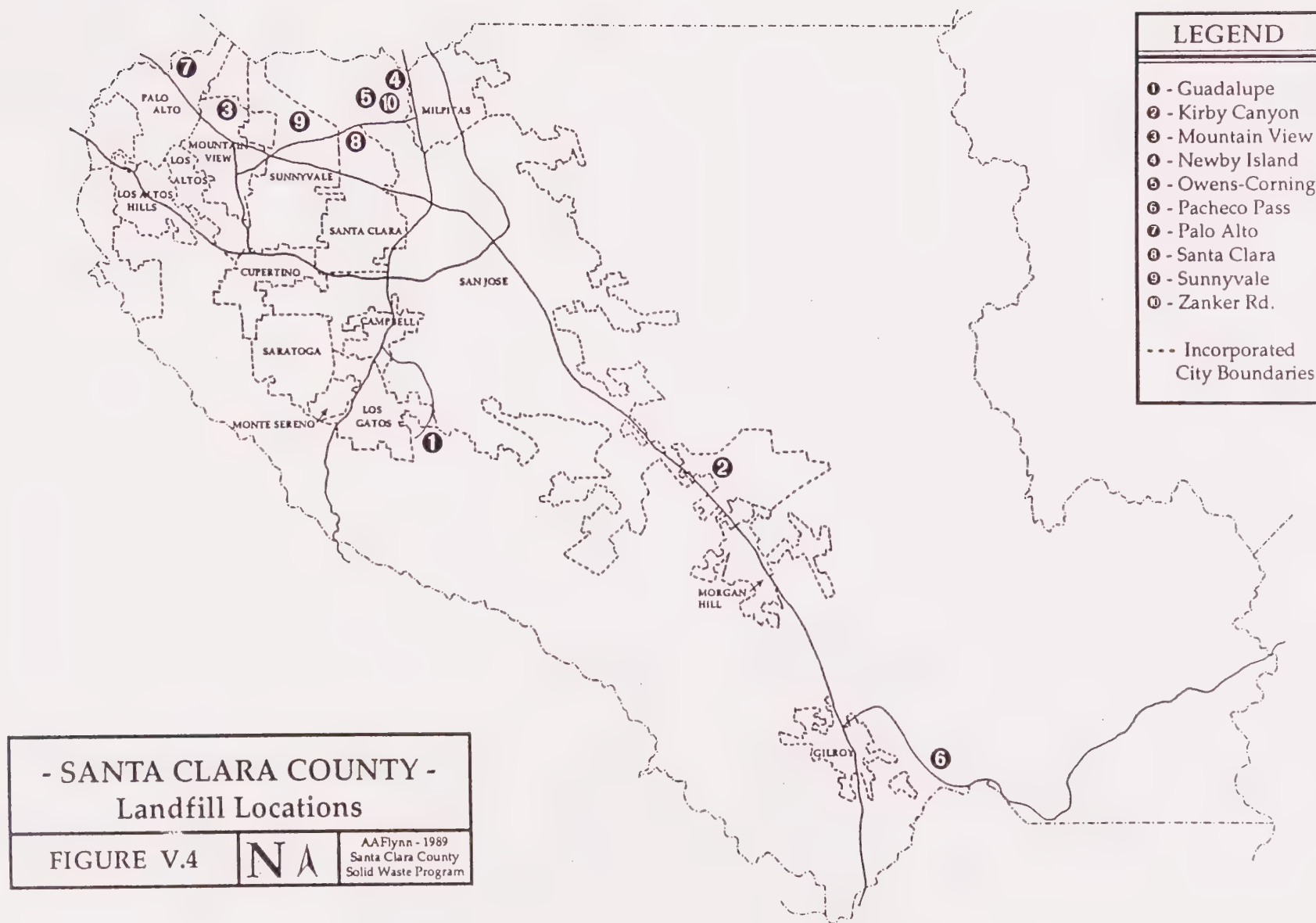
***Proposed Solid Waste Facility Site:*** A solid waste facility or solid waste facility expansion site for which a project is proposed, which is consistent with the applicable city or County general plan, and which is undergoing or has completed necessary environmental review. Proposed facility sites need not have received all local land use approvals and/or a solid waste facility permit.

## EXISTING DISPOSAL FACILITIES

There are nine permitted landfills in operation in the county: Guadalupe, Kirby Canyon, Mountain View, Newby Island, Pacheco Pass, Palo Alto, Santa Clara (All Purpose), Sunnyvale, and Zanker Road. The Mountain View Landfill only accepts waste from the general public. As noted above, all are classified as Class III facilities. Four sites (Mountain View, Palo Alto, Santa Clara, and Sunnyvale) are publicly owned. The remaining five are privately owned: Guadalupe by the Guadalupe Rubbish Disposal Company; Kirby Canyon by Waste Management, Incorporated; Newby Island by International Disposal Corporation, a wholly owned subsidiary of Browning Ferris Industries; Pacheco Pass by South Valley Refuse; and Zanker Road by Zanker Road Resource Recovery, Incorporated. Except for the Palo Alto site, all are privately operated.

Owens-Corning Fiberglas Corporation owns and operates a nonpermitted disposal site in northern San Jose for the disposal of wastes generated at their Santa Clara operations. The facility is not open for public use and is currently undergoing permitting procedures through the City of San Jose, LEA for the site.

Figure V.4 shows the location of all operating landfill facilities in the county. A site map of each facility is found following the facility description. Figure V.15 summarizes basic landfill information.



## Guadalupe Rubbish Disposal Site

The Guadalupe Landfill is owned and operated by Guadalupe Rubbish Disposal Company, Inc. The site was opened in 1931 as an open burning dump, before beginning operations as a sanitary landfill in 1956. The facility presently accepts franchised waste from the cities of Campbell, Monte Sereno, and Saratoga, the Town of Los Gatos, the surrounding unincorporated areas, and waste from individual contractors and the general public.

The 65-acre landfill is located west of San Jose, off of Guadalupe Mines Road, in a canyon immediately north of the Guadalupe Mines. Surrounding land uses include laboratory research (IBM) to the north, the Almaden Quicksilver County Park to the southeast, and open space to the west and south. The site is zoned for agricultural, residential, and laboratory-research uses. Access is provided by a 4,000 foot paved road originating at Guadalupe Mines Road north of the site.

The Class III landfill accepts only residential, commercial, industrial, and demolition wastes as defined by State regulations. Except for non-friable asbestos and high-moisture content waste, no hazardous or designated wastes may be accepted. According to reports filed with the RWQCB, the facility landfilled 227,196 tons of waste between July 1987 and June 1988. As of December 1988, public disposal fees are \$4.25 per cubic yard, with a minimum charge of \$5.00. Tipping fees are \$18.83 per ton.

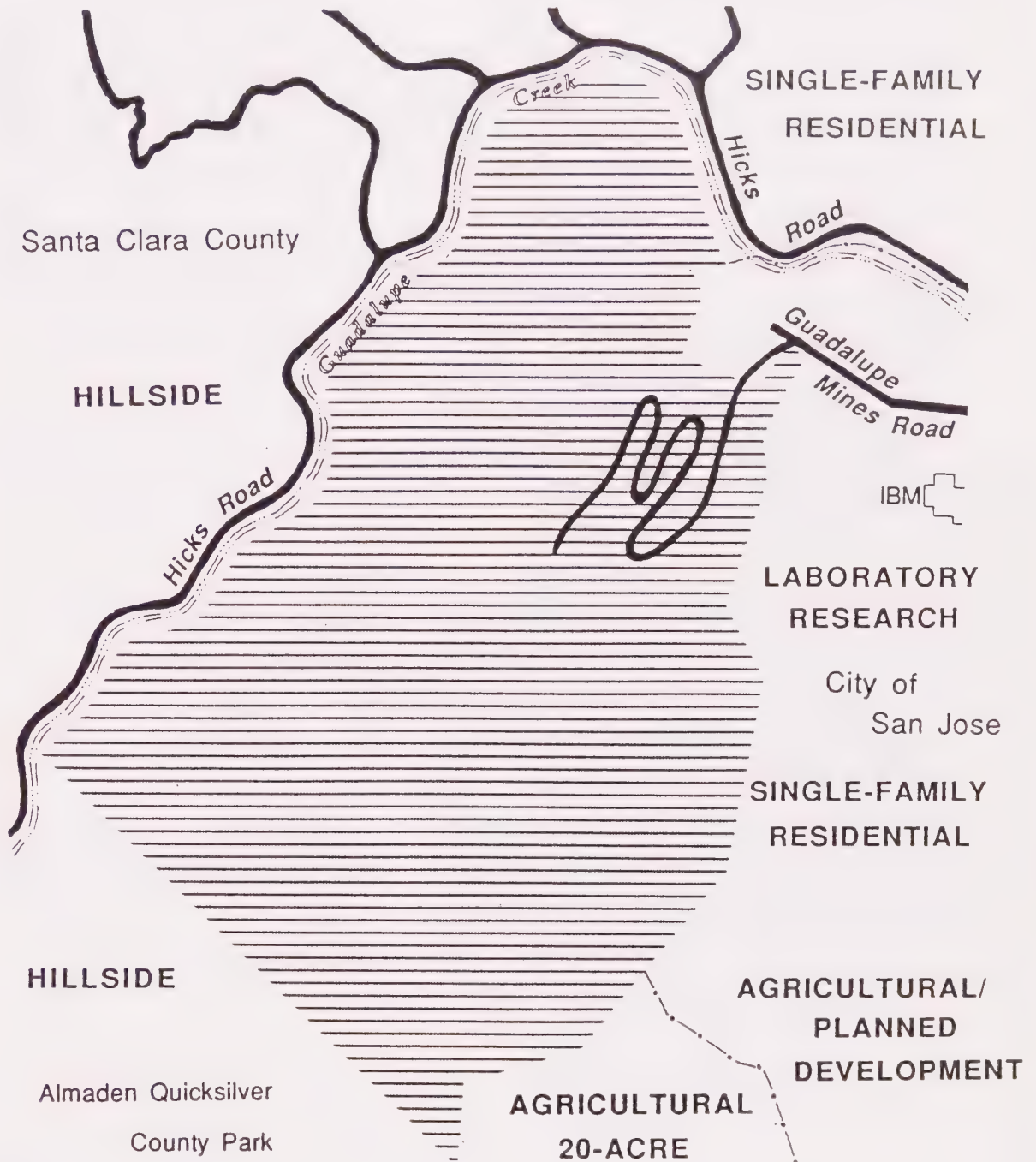
The landfill supports aggressive recycling activities, including salvaging of aluminum, newspaper, cardboard, ferrous metals, and batteries; wood chipping; and the re-use of concrete, asphalt, and soil. An on-site methane recovery system, the first in the county, produces 2,500 KW of power (enough to serve 4,000 homes) which is sold to PG&E.

The landfill has a remaining capacity of 1.2 million tons or 2 million cubic yards (as of July 1988), with closure projected for 1994. Owners are currently pursuing a 50-acre expansion to the site, which would extend the life of the facility to 2013 and increase capacity to 10.4 million tons (18 million cubic yards). As a part of the landfill expansion, the facility has applied for annexation into the City of San Jose. Proposed use after closure will depend on the outcome of the expansion proposal.

A hydrogeologic report for the site was done by EMCON Associates in January 1987, and revised in November 1987. Current operating permits issued to the site include

- CWMB Solid Waste Facility Permit (#43-AA-001 - June 26, 1979);
- RWQCB Waste Discharge Permit (#77-153 - January 9, 1978); and
- County Land Use Permits (#13 P75.4 - February 18, 1977, and #3463-38-50-88P - June 2, 1988).





LEGEND		GUADALUPE LANDFILL	SOURCE
<div><div><div></div><div>- Landfill Site</div></div><div><div></div><div>- Jurisdictional Boundary</div></div><div><div></div><div>- Access Route</div></div></div>			County Zoning Map EMCON Associates
N A	SCALE	SANTA CLARA COUNTY SOLID WASTE MANAGEMENT PLAN	PREPARED BY
	1" = 1000'		AAFlynn - 1989 Santa Clara County SolidWaste Program

## Kirby Canyon Sanitary Landfill

Kirby Canyon Sanitary Landfill is owned and operated by Waste Management, Incorporated (WMI). WMI has secured a long-term lease from the property owner, Oceanic California, Incorporated. The 827-acre disposal site (327 acres used for disposal purposes), opened in July 1986. The landfill presently receives franchised waste from the City of San Jose.

The landfill is located on a hill-face in south San Jose, east of the South Valley Freeway (U.S. 101) and Scheller Avenue interchange. The site is bordered by U.S. 101 and the Coyote Park open space chain to the west. The land adjacent to the site is designated Non-Urban Hillside and an open space buffer surrounds the entire property. Access is provided from Scheller Avenue.

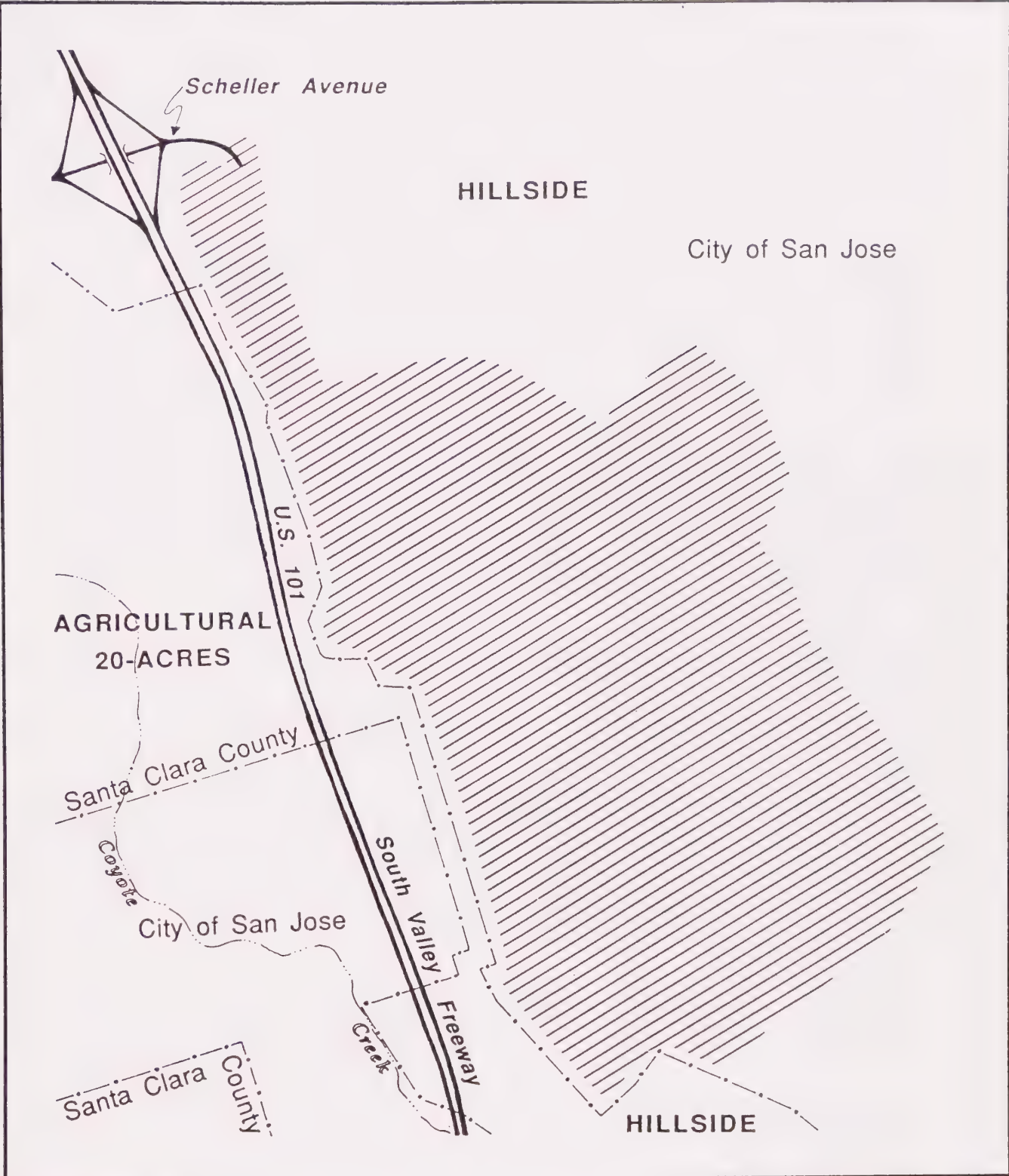
The Class III landfill accepts only garbage, rubbish, demolition, brush, and stumps for disposal. No hazardous or designated wastes may be accepted. According to reports filed with the RWQCB, the facility landfilled 99,022 tons of waste between July 1987 and June 1988. Tipping fees are \$20.50 per ton (as of January 1989).

Recently, WMI executed letters of intent with several north county communities to provide long-term disposal capacity. To service these communities (the cities of Sunnyvale, Palo Alto, and Mountain View, surrounding unincorporated areas, and the unincorporated Stanford area), WMI proposes to construct a transfer station in the north county area by the spring of 1991. See the description of the Sunnyvale Materials Recovery and Transfer Station under Proposed Facilities, page V-38.

With a remaining capacity of 24,126,877 or 36 million cubic yards (as of July 1988), the landfill is expected to remain in operation until 2038. A 13-million ton expansion of the landfill is currently being considered by WMI. Proposed use of the site after closure is open space.

A hydrogeologic report for the site was done by EMCON Associates in July 1983. Current operating permits include

- CWMB Solid Waste Facility Permit (#43-AN-008 - October 31, 1984);
- RWQCB Waste Discharge Permit (#85-47 - April 30, 1985);
- City of San Jose Land Use Permit (#PD84-5-55 - August 8, 1984); and
- City of San Jose Planned Development Permit (#PD85-7-57 - September 26, 1985).



LEGEND

- Landfill Site
- Jurisdictional Boundary
- Access Route

N A

SCALE

1" =

KIRBY CANYON LANDFILL

SANTA CLARA COUNTY  
SOLID WASTE MANAGEMENT PLAN

SOURCE

County Zoning Map  
City Zoning Map

PREPARED BY

AAFlynn - 1989  
Santa Clara County  
SolidWaste Program



## City of Mountain View Landfill

The Mountain View Landfill is owned by the City of Mountain View and operated by Wastech, Inc. Opened in 1930, the site was not heavily used until 1970 when the present sanitary landfill began operation. The landfill currently serves the general public.

The 700-acre landfill is located at the north end of Shoreline Boulevard in Mountain View. In accordance with a detailed final-use plan, 550 acres of land have been filled, closed, and developed as the Shoreline Regional Park. The active landfill is located adjacent to and south of the park. Other surrounding land uses include light industrial to the west and east, mixed residential, commercial, and industrial to the south, and Moffett Field Naval Air Station farther to the east. Access is via North Shoreline Boulevard.

The Class III site accepts only residential, commercial, industrial, and demolition wastes for disposal. No hazardous or designated wastes may be accepted. According to reports filed with the RWQCB, the site landfilled 297,014 tons of waste between July 1987 and June 1988. Disposal fees, as of December 1988, are \$4.50 per cubic yard (city resident), \$12.50 per cubic yard (non-resident), and \$18.50 per cubic yard (3-axle vehicles).

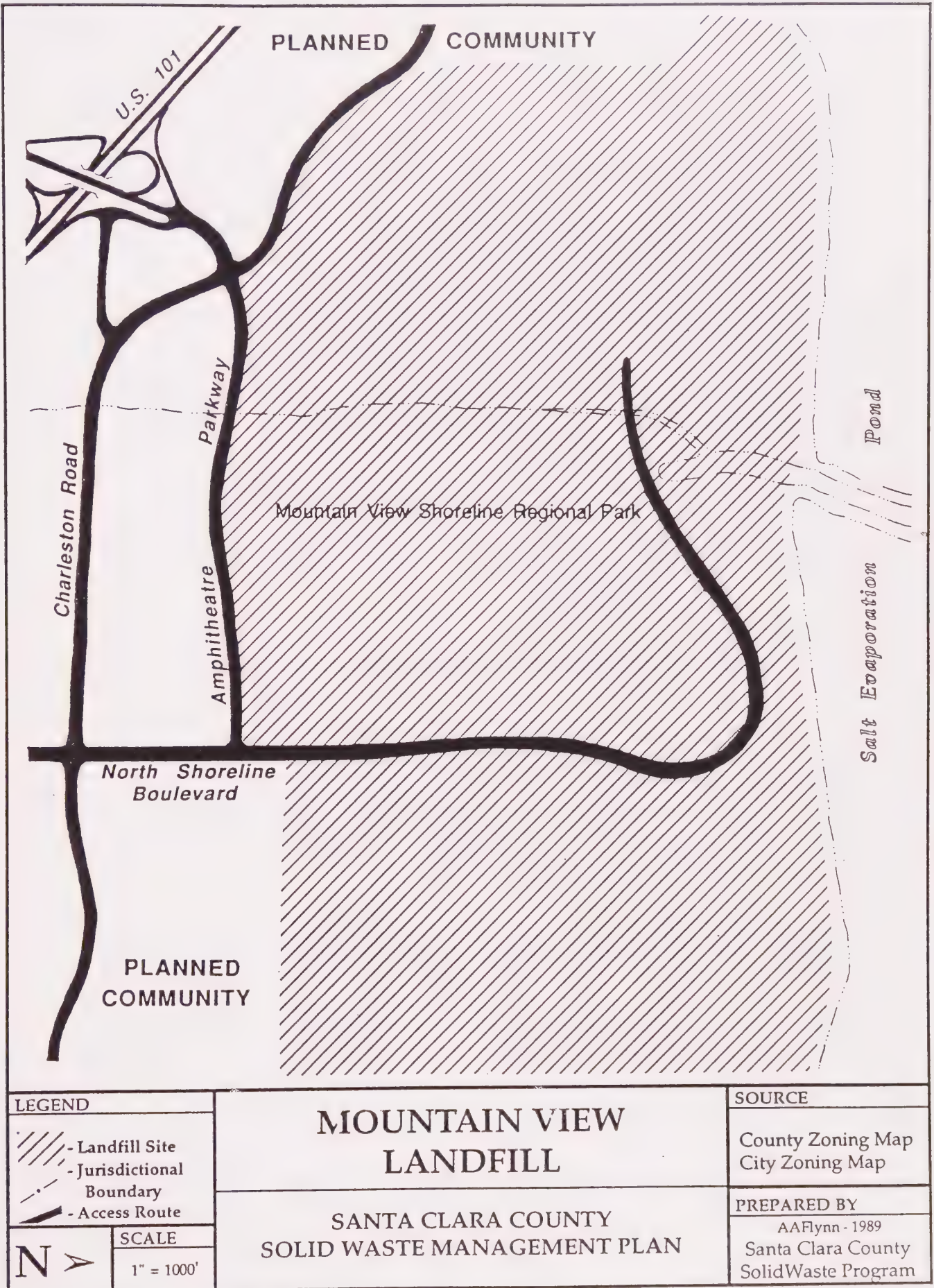
In 1984, the City purchased the adjacent 70-acre Stierlin Road Landfill, also known as the Ferrari site. In mid-1988, due to permitting difficulties and encroaching incompatible land uses, the City Council declared its intent to close the landfill. In November 1988, the communities of Sunnyvale, Cupertino, and Los Altos, and Los Altos Hills ceased using the landfill. The City of Mountain View has arranged to dispose of its franchised waste at the Newby Island Landfill until the completion of a north county transfer station.

In October 1988, the City Council decided to keep the original landfill open for use by the general public. This change of use requires a permit modification which the City is currently pursuing. The City has also indicated its intent to permit the adjacent 70-acre landfill for public use, provided that operations at the site do not create substantial inconveniences for adjacent parcels.

As of July 1988, the landfill had a remaining capacity of 150,000 tons (250,000 cubic yards). The projected closure date of the landfill will be determined during the modification of the facility permit.

A hydrogeologic report was done on the site by EMCON Associates in 1974. A hydrogeologic report was done on the Ferrari site by EMCON Associates in December of 1972. Current operating permits for the site include

- CWMB Solid Waste Facility Permit (#43-AL-001 - March 10, 1978);
- RWQCB Waste Discharge Permits (Mountain View site: #78-11 as amended by #81-26 - May 20, 1981; and Stierlin Road site: #73-51 - August 28, 1973).





## Newby Island Sanitary Landfill

The Newby Island Landfill is owned and operated by International Disposal Industries, a wholly-owned subsidiary of Browning-Ferris Industries (BFI). The site was opened around 1930 as an open burning dump before being converted to a sanitary landfill in 1956. The facility presently accepts waste from the cities of San Jose, Milpitas, Cupertino, Los Altos, Mountain View, Santa Clara, the Town of Los Altos Hills, surrounding unincorporated areas, independent contractors, and the general public.

Located at the west end of Dixon Landing Road in north San Jose, the 342-acre site is bounded by Coyote Creek on the west, north, and east, and a slough tributary to Coyote Creek on the south. Surrounding land uses include salt evaporation ponds to the west, a wildlife refuge to the north, and sludge beds to the south. The property is zoned R3 - Residential. Access is provided via the Dixon Landing Road interchange off of Interstate 880.

The Class III landfill accepts garbage, rubbish, small dead animals, demolition, brush, stumps, large containers, and street refuse. No hazardous or designated wastes may be accepted. The facility landfilled 695,000 tons of waste between July 1987 and June 1988. Public disposal fees and tipping fees (as of December 1988) range from \$4.65 to \$10.75 per cubic yard, with a minimum charge of \$8.60 per load.

In August 1988, a proposed recycling facility, called The Recyclery, received final CoSWMP approval for construction adjacent to the landfill. For more information on The Recyclery see page V-38. The site also has a methane recovery system in place with a design capacity of 2,000 KW.

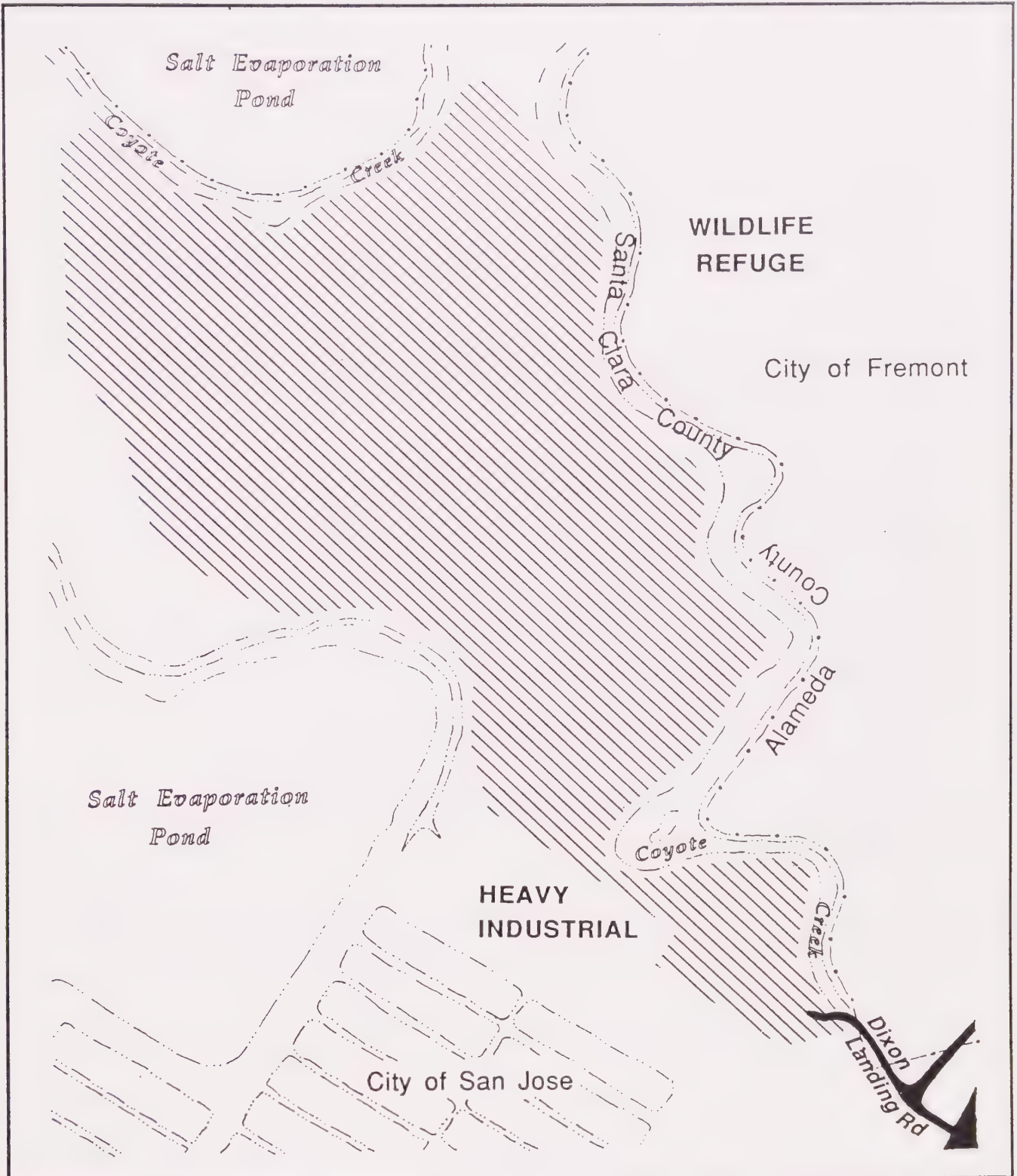
Recently, BFI contracted with the communities of Cupertino, Los Altos, Los Altos Hills, and Santa Clara, and adjacent unincorporated areas, to provide 30 years of disposal capacity. In November 1988, with final approval of a permit modification to allow for additional waste at the landfill, these cities began using Newby Island. The City of Mountain View has also contracted to dispose of waste at the landfill until 1991.

With a remaining capacity of 22,501,906 tons or 27,609,700 cubic yards (as of July 1988) and the opening of The Recyclery, the landfill is expected to remain in operation until 2026. Proposed use after closure is an open space park.

A hydrogeologic report for the site was done by EMCON Associates in 1972 and by Purcell, Rhodes and Associates in 1979 and 1982. Current operating permits issued to the site include

- CWMB Solid Waste Facility Permit (#43-AN-003 - Feb. 7, 1989); and
- RWQCB Waste Discharge Permit (#75-22, as amended by #82-4, #82-63, #82-64, and #87-152 - November 30, 1987)





LEGEND		SOURCE	
- Landfill Site - Jurisdictional Boundary - Access Route	<b>NEWBY ISLAND LANDFILL</b>		County Zoning Map City Zoning Map
	<b>SANTA CLARA COUNTY SOLID WASTE MANAGEMENT PLAN</b>		<b>PREPARED BY</b> AAFlynn - 1989 Santa Clara County SolidWaste Program
	<b>N</b> <b>SCALE</b> 1" = 1000'		

## Pacheco Pass Sanitary Landfill

The Pacheco Pass Landfill is owned by Gilroy Garbage Company and South Valley Refuse Disposal Company, Inc., and operated by South Valley Refuse. Opened in 1965, the site initially operated only during summer months. In 1974 after extensive site preparation, the landfill opened year-round to accommodate wastes previously disposed of at the Gilroy Landfill. The facility accepts only franchised residential and commercial wastes from the cities of Gilroy and Morgan Hill, and adjacent unincorporated areas.

The 136-acre landfill is located on a hillside east of Gilroy, off of Pacheco Pass Highway and Bloomfield Road. The property, zoned for agriculture, is surrounded by rural agricultural land uses. Site access is provided by a 4,000 foot paved road originating at the Pacheco Pass Highway.

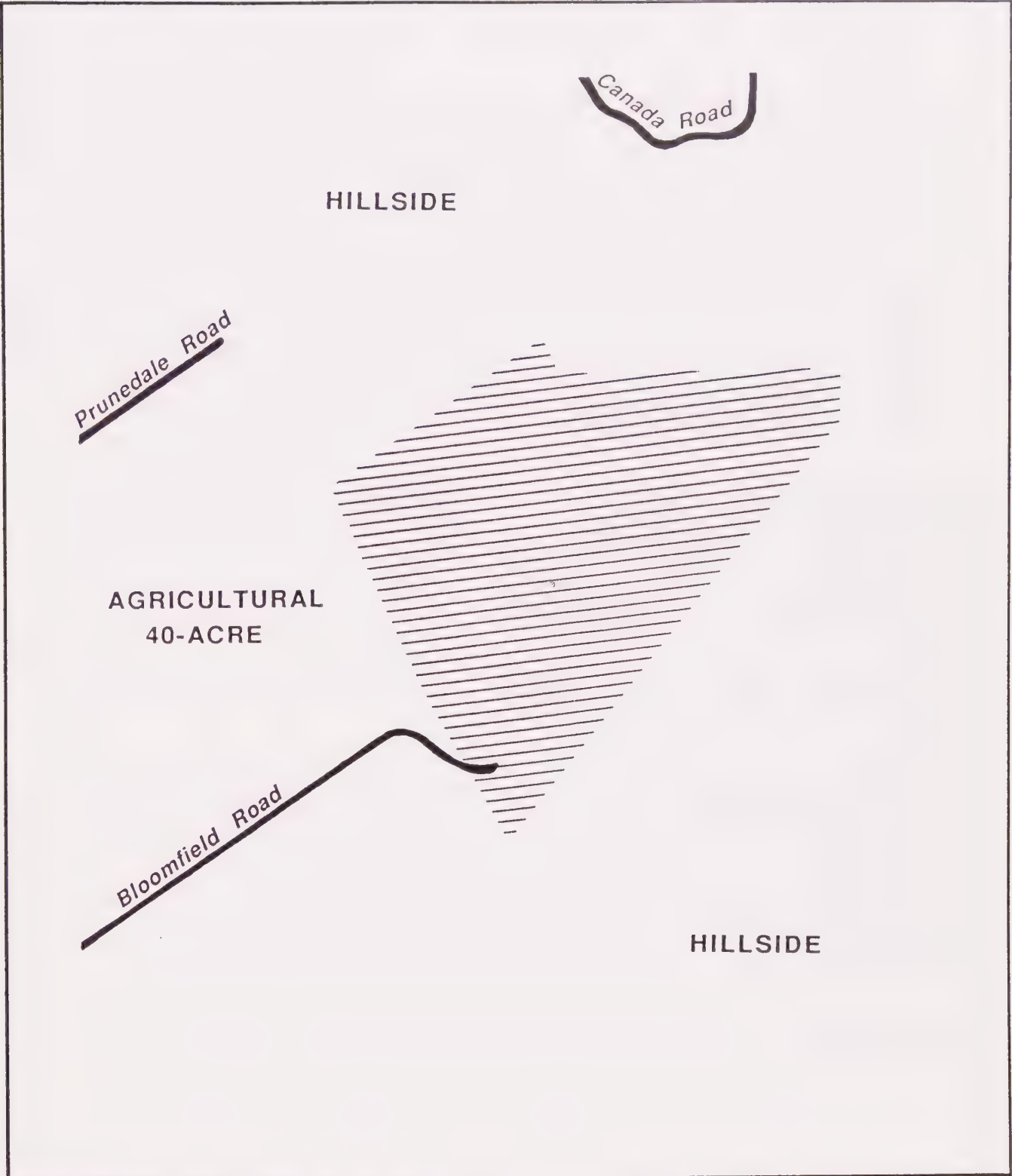
The Class III landfill accepts garbage, rubbish, cannery wastes (dry), street refuse, brush, stumps, and demolition wastes for disposal. No hazardous or designated wastes may be accepted. According to reports submitted to the RWQCB, the facility landfilled 78,198 tons of waste between July 1987 and June 1988. Tipping fees are \$18.00 per ton (as of March 1989).




In early 1985, a 60-acre expansion into Parcel III of the site received final approval from the CWMB. During site development, an earthquake fault was discovered and reported to the Central Coast Regional Water Quality Control Board by the site owner. In response to this discovery, 20 acres of the 60-acre expansion site were redesigned to include a double liner, and are currently being developed for future disposal use. Until the remaining 40 acres receives Waste Discharge Requirements, South Valley Refuse plans to utilize the acreage for recycling activities and disposal of inert materials. The company anticipates that this will help to extend the life of the fully-permitted 20 acres.

With limited expansion into Parcel III, the remaining capacity of the landfill (as of July 1988) is 1.4 million tons (2.34 million cubic yards) and the projected closure date is 1998. After closure, the site is proposed for agricultural uses.

A hydrogeologic report for the site was done by EMCON Associates in January 1984. Operating permits issued to the site include

- CWMB Solid Waste Facility Permit (#43-AA-0004 - June 20, 1985);
- RWQCB Waste Discharge Permit (#78-09 - September 8, 1978 ); and
- County Land Use Permit (#2102 - June 22, 1984).



LEGEND		SOURCE	
 - Landfill Site  - Jurisdictional Boundary  - Access Route	PACHECO PASS LANDFILL		County Zoning Map
	SANTA CLARA COUNTY SOLID WASTE MANAGEMENT PLAN		PREPARED BY AAFlynn - 1989 Santa Clara County SolidWaste Program
	N A SCALE 1" = 1000'		



## City of Palo Alto Refuse Disposal Area

The Palo Alto Refuse Disposal Area is owned and operated by the City of Palo Alto. Opened around 1920 as an open burning dump, the site was converted to a sanitary landfill in 1956. The facility currently serves the City of Palo Alto, the Stanford community, and surrounding unincorporated areas.

The 146-acre landfill is located in Palo Alto at the northeast end of Embarcadero Road. Situated in a low-lying area, the site is bound by a bay marsh preserve to the north, Mayfield Slough to the east, and Matadero Creek to the south. Surrounding land use includes the Palo Alto Water Quality Control Plant to the northwest, undeveloped baylands and park land to the north, a flood control basin to the east and south, and the ITT Marine Transmission Facilities to the west. The site is zoned as a public facility. Access is provided via Embarcadero Road.

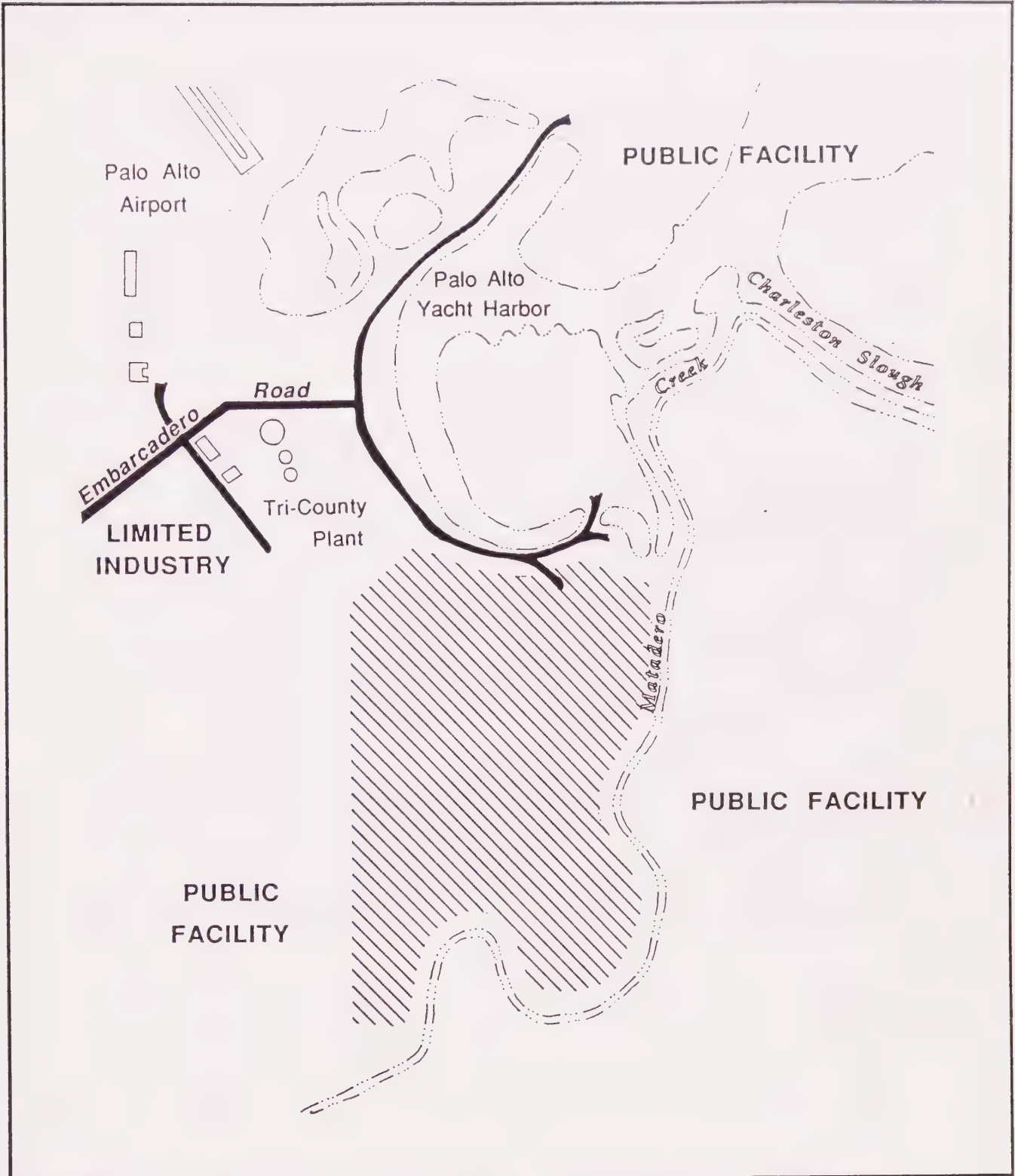
The Class III landfill accepts only garbage, rubbish, demolition debris, brush, and street refuse. No hazardous or designated wastes may be accepted. According to reports submitted to the RWQCB, the facility received 81,284 tons of waste in the landfill between July 1987 and June 1988. As of December 1988, public disposal fees are \$7.00 per cubic yard (city residents) and \$16.00 per cubic yard (commercial), and tipping fees are \$22.00 per cubic yard (3-axle or larger vehicles).


The facility supports extensive recycling activities, with a recycling center and composting operation located on site.

The landfill has a remaining capacity of 595,912 tons or 1,083,476 cubic yards (as of July 1988). In December 1987, the landfill received a determination of conformance from the Santa Clara County Solid Waste Program to raise the height of the landfill. This height increase would extend the anticipated closure date of the landfill from 1994 to 1999, and add 775,619 tons of capacity to the site. However, due to recent disposal contract negotiations with Waste Management, Incorporated, the City may start diverting some of its wastes to the Kirby Canyon Landfill in early 1991. The proposed use after closure is a passive park.

A hydrogeologic report for the site was done by Engineering Science, Inc., on June 28, 1973. Current operating permits issued to the site include

- CWMB Solid Waste Facility Permit (#43-SS-005 - December 12, 1977); and
- RWQCB Waste Discharge Permit (#75-77 as amended by #77-3, #77-154, #79-116, and #88-038 - March 16, 1988).



LEGEND		SOURCE	
 - Landfill Site  - Jurisdictional Boundary  - Access Route	<b>PALO ALTO LANDFILL</b>		County Zoning Map City Zoning Map
	<b>SANTA CLARA COUNTY SOLID WASTE MANAGEMENT PLAN</b>		PREPARED BY AAFlynn - 1989 Santa Clara County SolidWaste Program
 <b>N A</b>		SCALE 1" = 1000'	

## Santa Clara All Purpose Landfill

The All Purpose Landfill is owned by the City of Santa Clara and operated by the All Purpose Landfill Company. Opened in 1965, the City operated the disposal site until assigning operations to the All Purpose Landfill Company in 1969. The site presently serves the City of Santa Clara.

Located off of Lafayette Street in Santa Clara, the 193-acre site is bounded by San Tomas Aquino Creek to the southwest, the Guadalupe River to the northwest, and highway 237 to the north. Residential housing and an elementary school are located one-half mile southeast of the site. Lafayette Street serves as the immediate haul route to the site. An 800-foot gravel road provides access to the disposal area from Lafayette Street.

The Class III landfill accepts only garbage, rubbish, demolition waste, and tires for disposal. No hazardous or designated wastes may be accepted. According to reports filed with the RWQCB, the facility landfilled 199,105 tons of waste between April 1987 and March 1988. Public disposal fees are \$3.65 per cubic yard (loose) and \$4.75 per cubic yard (compacted), and tipping fees are \$18.25 per ton (loose) and \$19.00 per ton (compacted), as of December 1988.

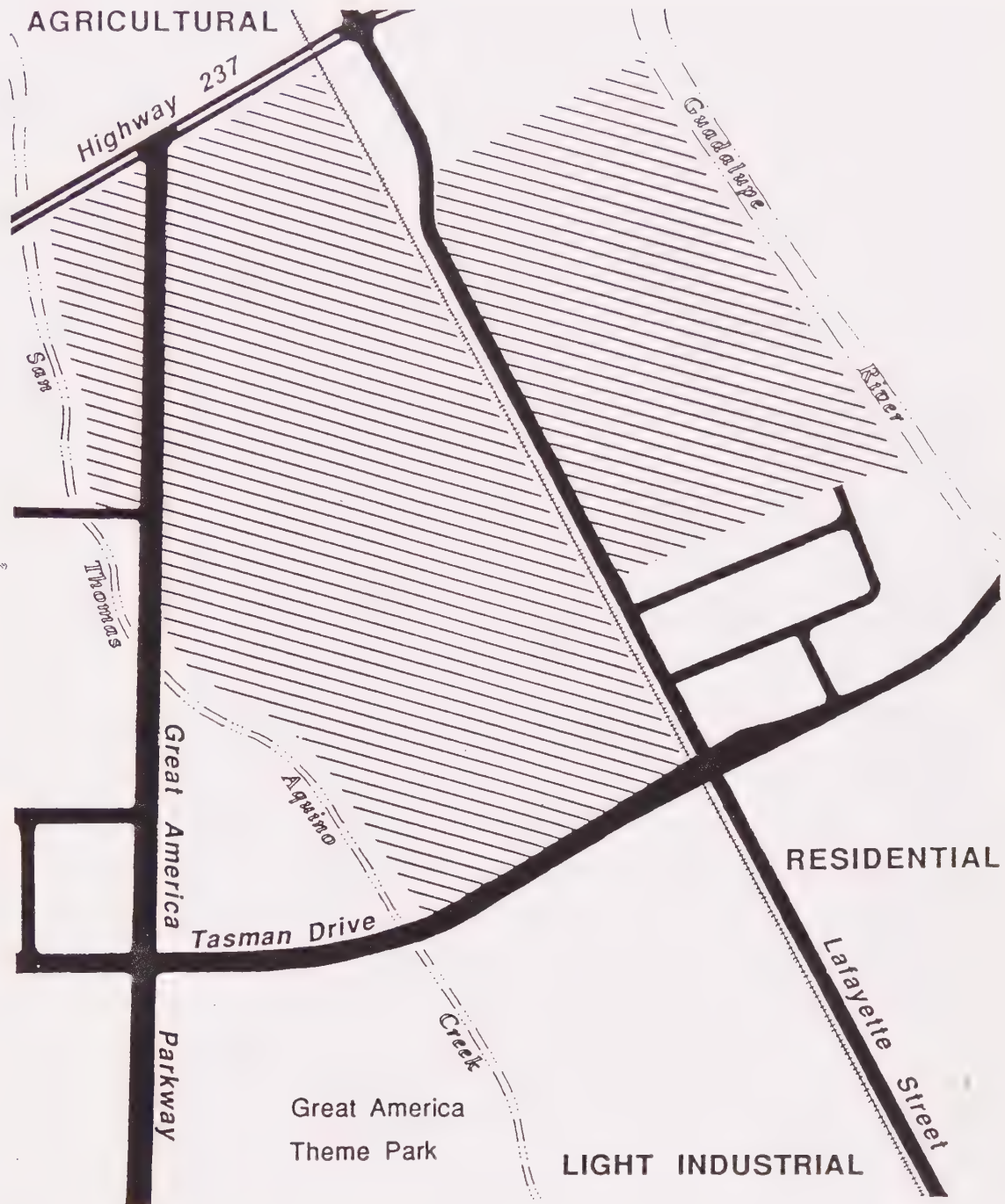
The City contracted with Pacific Lighting Energy Systems to construct and operate a landfill-gas collection and conversion system at the landfill. The system has been in operation since 1987. In 1988 at the request of the Bay Area Air Quality Management District, the City installed a stand-by flaring facility that operates when the conversion system does not.

With a remaining capacity of 810,565 tons or 1,350,000 cubic yards (as of July 1988), the landfill is expected to remain open until 1992. The landfill site was originally anticipated to provide 260 acres of landfill space. However, commercial development in the area has reduced the total landfill acreage to 193. The City is currently landfilling at the northern portion of the site. Much of the site has been filled, closed, and developed into a municipal golf course. Proposed uses after closure include the continued development of the existing golf course and/or open space.

Hydrogeologic reports for the site were done by United Soil Engineering, Incorporated, on August 6, 1973, and EMCON Associates, in September 1985. Current operating permits issued to the site include

- CWMB Solid Waste Facility Permit (#43-AO-001 - February 13, 1986); and
- RWQCB Waste Discharge Permit (#763-77 as amended by #85-58, #85-78, #86-15, and #86-66 - August 20, 1986).





**LEGEND**

- Landfill Site
- Jurisdictional Boundary
- Access Route

**N**

**SCALE**

1" = 500'

**ALL PURPOSE LANDFILL  
(CITY OF SANTA CLARA)**

**SANTA CLARA COUNTY  
SOLID WASTE MANAGEMENT PLAN**

**SOURCE**

County Zoning Map  
City Zoning Map

**PREPARED BY**

AAFlynn - 1989  
Santa Clara County  
SolidWaste Program

## Sunnyvale Sanitary Landfill

The Sunnyvale Sanitary Landfill is owned by the City of Sunnyvale and operated by the Oakland Scavenger Company. Opened as an open burning dump in the 1920s, the site was converted to a sanitary landfill in 1956. In 1960, the operation of the landfill was taken over by Specialty Garbage and Rubbish Service, Incorporated, under franchise to the City. The facility serves the City of Sunnyvale.

Located at the corner of Carribean Drive and Borregas Avenue in Sunnyvale, the 112-acre site (93 of which are permitted for disposal) is bound by salt evaporation ponds to the north, the Sunnyvale East Storm Drain Channel to the east, Carribean Avenue to the south, and industrial property to the west. The land, zoned for public facilities, is also the site of the Sunnyvale Sewage Treatment Plant. Surrounding land uses are primarily industrial land and undeveloped baylands areas. Mathilda, Borregas, and Crossman Avenues, and Carribean Drive all serve as immediate haul routes to the site.

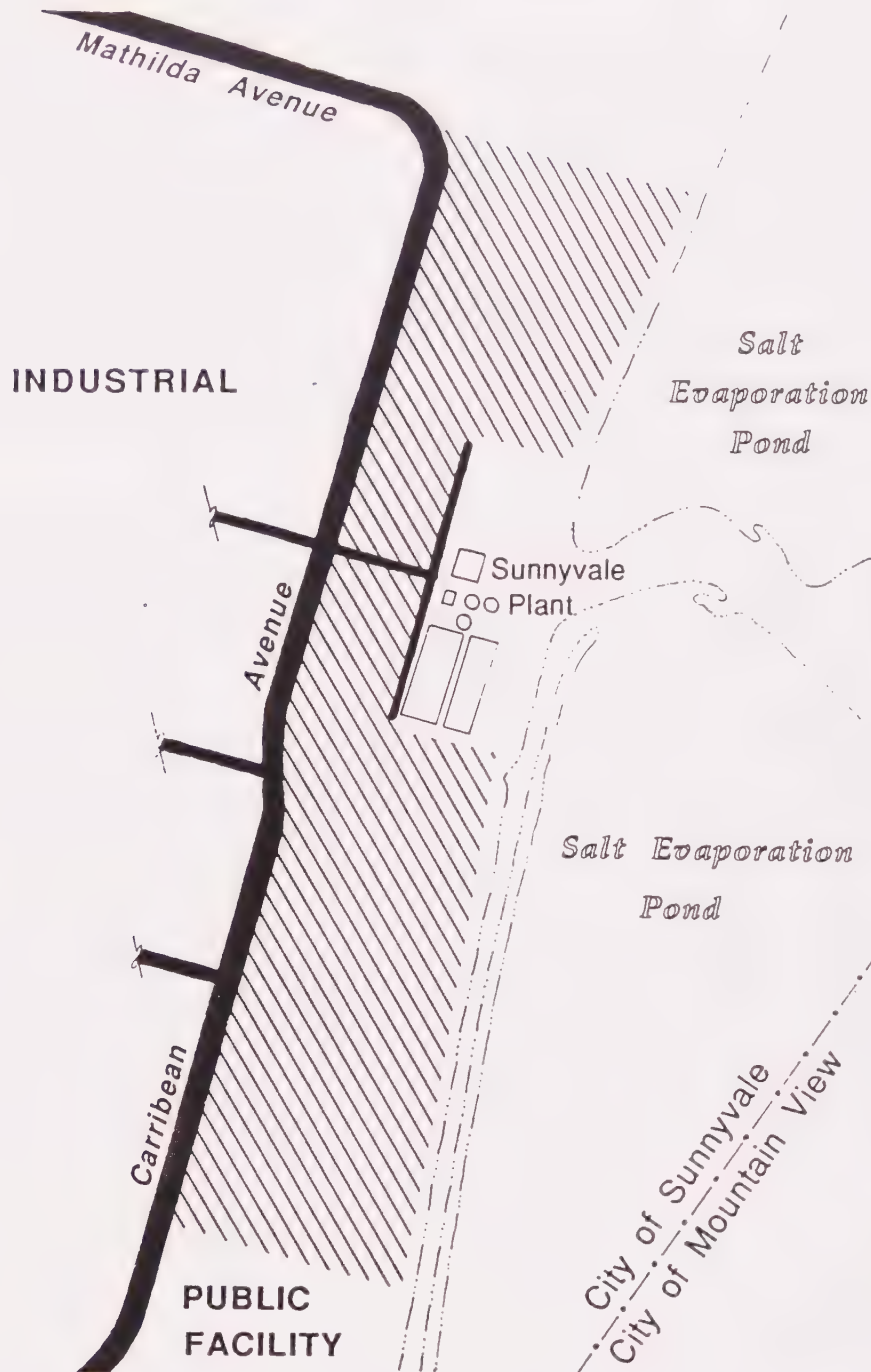
The Class III landfill accepts only residential, commercial, industrial, and demolition wastes as defined by State regulations. No hazardous or designated wastes may be accepted. According to reports filed with the RWQCB, the facility landfilled 52,656 tons of waste between July 1987 and June 1988. Public disposal fees and tipping fees are \$4.55 per cubic yard or \$10.15 per cubic yard for demolition waste.

The drop off recycling center located at the site serves City residents, and also handles the processing of recyclable materials collected by the Sunnyvale, Los Altos, and Mountain View curbside recycling programs. The City has also installed a methane recovery system and is currently flaring the gas collected.

The facility has a remaining capacity of 1,360,150 tons (as of July 1988) or 2,473,000 cubic yards. Recently, the City received final approval to increase the amount of daily incoming waste at the landfill from 200 to 500 tons per day. This increase allows the landfill to accept franchised City wastes, previously disposed of at the Mountain View Landfill, until the completion of a north county transfer station. The increase in through-put occurred at the same time the FAA raised a radar antenna located north of the facility, allowing the site to be filled to a final height of 110 feet. Therefore, the increased daily tonnage will not alter the projected closure date of 1994 nor the site footprint. The proposed use of the site after closure is an open space park.

A hydrogeologic report was done for the site by Cooper and Clark, on May 4, 1976. Current operating permits include

- CWMB Solid Waste Facility Permit (#43-AA-007 - November 17, 1988); and
- RWQCB Waste Discharge Permit (#78-3 as amended by #81-14, and #89-105 - 1989).



**LEGEND**

- Landfill Site
- Jurisdictional Boundary
- Access Route

**N A**

**SCALE**

1" = 1000'

**SUNNYVALE LANDFILL**

**SANTA CLARA COUNTY  
SOLID WASTE MANAGEMENT PLAN**

**SOURCE**

County Zoning Map  
City Zoning Map

**PREPARED BY**

AAFlynn - 1989  
Santa Clara County  
SolidWaste Program



## Zanker Road Disposal and Recycling Center

Zanker Road Disposal and Recycling Center is owned and operated by Zanker Road Resource Recovery, Incorporated. Formerly known as the Nine Par Disposal Site, the facility was operated by the Nine-Par Company from 1934 to 1977. Zanker Road Resource Recovery reopened it in 1985. The facility currently serves northern San Jose and surrounding communities.

Located west of the intersection of Zanker Road and Los Esteros Road in northern San Jose, the 70-acre site is bound by a wetland habitat to the north, the Leslie Salt Company evaporation ponds to the north and west, the Artesian Slough to the northwest, the San Jose/Santa Clara Water Pollution Control Plant to the south, and sludge ponds to the east. Access is provided via Los Esteros Road.

The Class III landfill accepts rubbish, brush/stumps, and demolition wastes for disposal. No garbage, hazardous, or designated wastes may be accepted, except asbestos (under certain conditions). According to reports filed with the RWQCB, the facility landfilled 71,867 tons of waste between July 1987 and June 1988. Public disposal and tipping fees are \$2.75 to \$9.00 per cubic yard.

Zanker Road Resource Recovery conducts extensive recycling activities at the site, accepting incoming recyclable materials and pulling recyclables directly from the waste stream. On average, 30% of the total incoming waste stream is recycled. See Chapter VI for further information on recycling activities.

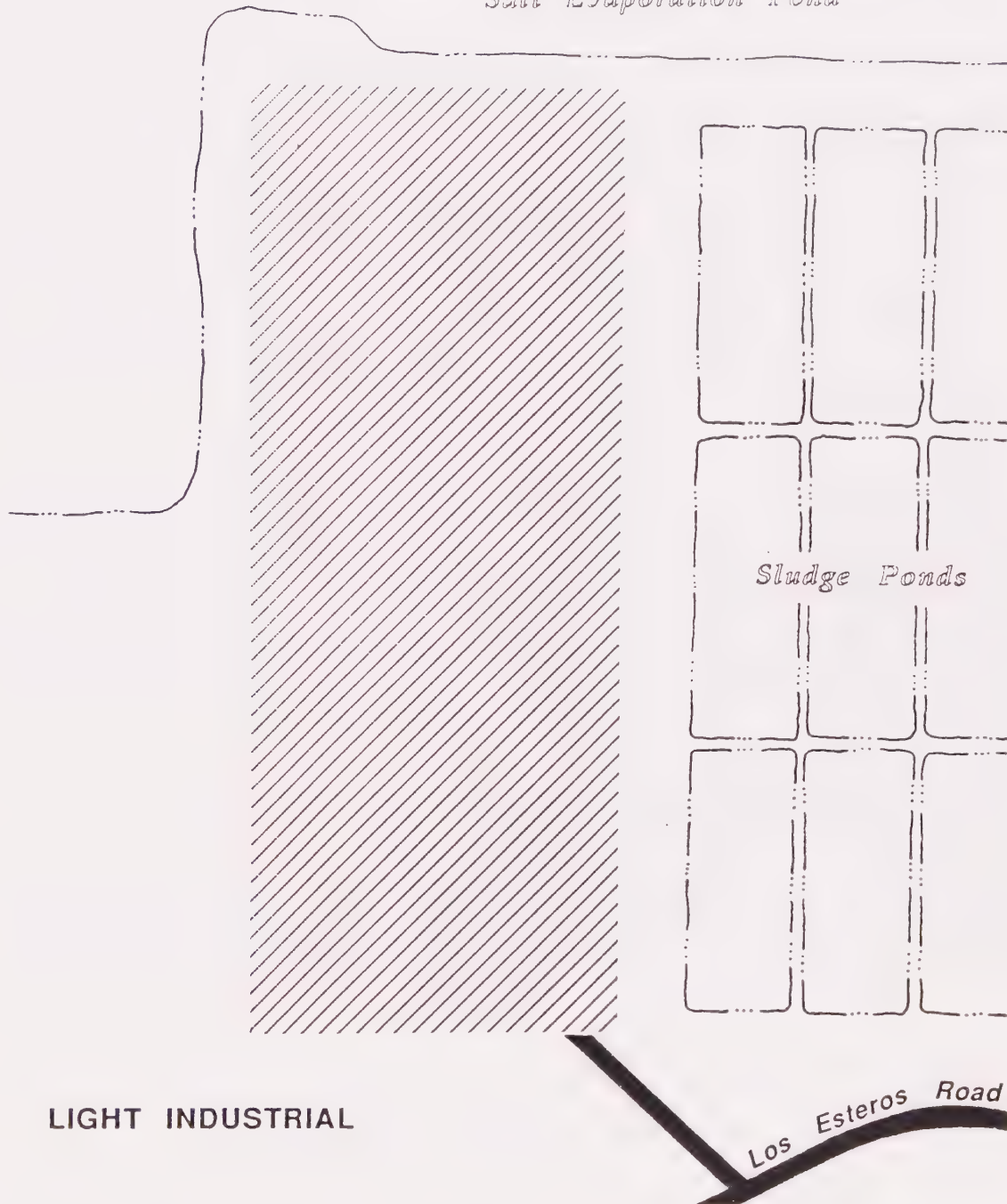
When the present owners purchased the facility, the southern 40 acres of the site had been partially filled and not properly closed. Upon reopening the facility, the company began landfilling the remaining portion of the 40 acres, with plans of moving to the northern 30 acres. In 1986, 6 of the northern 30 acres (considered wetlands) were added to the active landfill. This allowed for the construction of a leachate collection and recovery system and proper closure of the landfill. To mitigate for the loss of wetlands, the company created a wildlife habitat bound by a conservation easement on the remaining 24 acres.

The present 46-acre landfill has a remaining capacity of 784,133 tons or 1.2 million cubic yards (as of 7/1/88), and is expected to remain in operation until 2003. The proposed use after closure is open space.

Hydrogeologic reports were done on the site by William C. Ellis, Consulting Geologist, in June 1975 (reviewed in August 1985), and by Woodward-Clyde. Current operating permits include

- CWMB Solid Waste facility Permit (43-AN-007 - March 7, 1985);
- RWQCB Waste Discharge Permit (#85-132 as amended by #87-032 - May 1, 1987); and
- City of San Jose Land Use Permit (#PD87-1-7 - July 25, 1987).




*Salt Evaporation Pond*



LIGHT INDUSTRIAL

*Los Esteros Road*

LEGEND

-  - Landfill Site
-  - Jurisdictional Boundary
-  - Access Route

N A

SCALE

1" = 500'

**ZANKER ROAD LANDFILL**

**SANTA CLARA COUNTY  
SOLID WASTE MANAGEMENT PLAN**

SOURCE

County Zoning Map  
City Zoning Map

PREPARED BY

AAFlynn - 1989  
Santa Clara County  
SolidWaste Program

## NON-PERMITTED EXISTING DISPOSAL FACILITIES

### Owens-Corning Fiberglas Landfill

Owens-Corning Fiberglas Corporation owns and operates the Owens-Corning Fiberglas Landfill for its own use. The 88-acre site was opened around 1956 to accept process waste from the corporation's Santa Clara plant. The disposal area presently in use encompasses about 46 acres.

Located at the east end of Los Esteros Road in north San Jose, the landfill site is bound by Los Esteros Road to the south and west, a PG&E powerline easement to the north, and the San Jose-Santa Clara Water Pollution Control Plant emergency out-fall canal to the east. The site is zoned Light Manufacturing. Surrounding land uses include agricultural land to the south and west, and the Bay Area National Wildlife Refuge to the north. The Zanker Road Disposal and Recycling Center is located directly east of the site. Access is provided via Los Esteros Road.

The Owens-Corning Fiberglas Landfill is currently operating without City permits. The City of San Jose has determined that this site does not have grandfather status and must therefore acquire all appropriate permits. As the first step in the permitting process, Owens-Corning filed (effective June 1, 1989) an application for a General Plan Amendment to designate the site as a "candidate solid waste facility" in the City of San Jose's General Plan. Further, Owens-Corning is committed (by letter of December 23, 1988) to the City of San Jose to obtain all appropriate permits in order to continue the operation of this site.

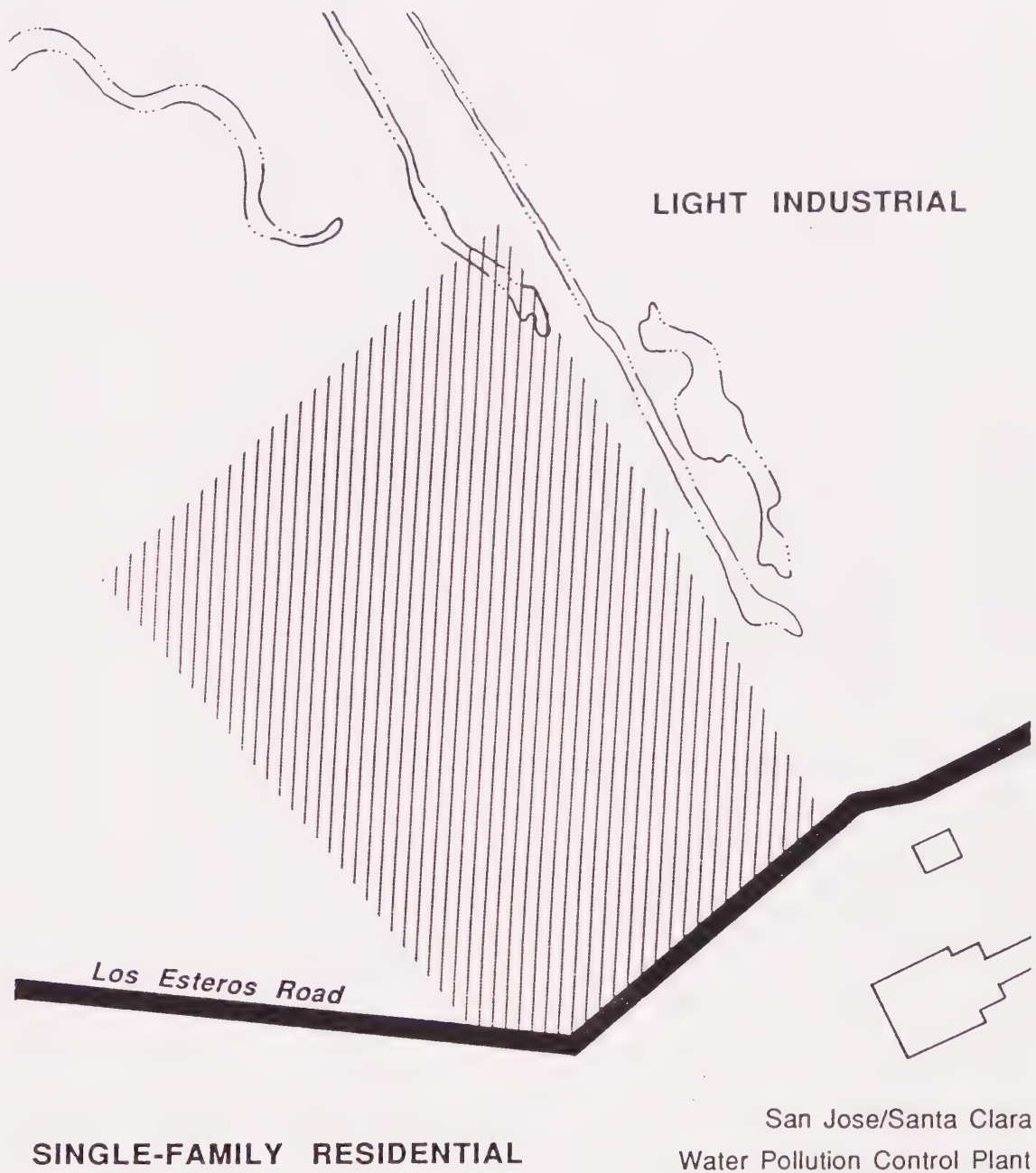
The facility has been issued a RWQCB Waste Discharge Permit (#77-127 as amended by #78-67 - August 15, 1978).




Because of its current status, some of the information required by state regulations to be included in the CoSWMP is not yet available for the facility. Information unavailable at the time of this Revision includes

- Remaining landfill disposal capacity,
- Closure date of facility,
- Quantity and type of waste received for disposal,
- Proposed use after closure of landfill, and,
- Disposal fees charged, if any.

As the permitting process progresses, this information will become available.



**LEGEND**

-  - Landfill Site
-  - Jurisdictional Boundary
-  - Access Route

**N A****SCALE**

1" = 500'

## OWENS-CORNING LANDFILL

### SANTA CLARA COUNTY SOLID WASTE MANAGEMENT PLAN

**SOURCE**

County Zoning Map  
City Zoning Map

**PREPARED BY**

AAFlynn - 1989  
Santa Clara County  
SolidWaste Program

FIGURE V.15 - Summary Landfill Information

LANDFILL	DESIGN CAPACITY	PERMITTED CAPACITY	POSSIBLE EXPANSION(s)	DATE OF CLOSURE	AREAS SERVED
GUADALUPE	365 acres	65 acres (1.59 m.t.)	50 acres (3.63 m.t.) (proposed)	1994	City of Campbell Town of Los Gatos City of Monte Sereno City of Saratoga Unincorporated areas Independent Contractors General Public
KIRBY CANYON	325 acres (24.3 m.t.)	325 acres (24.3 m.t.)	13 million tons (proposed)	2038	City of San Jose Independent Contractors General Public
MOUNTAIN VIEW	700 acres	To Be Determined	To Be Determined	TBD	General Public
NEWBY ISLAND	342 acres, 19.2 m.t.)	342 acres (19.5 m.t.)	To Be Determined	2026	City of Cupertino City of Los Altos Town of Los Altos Hills City of Milpitas City of Mountain View City of San Jose City of Santa Clara Portola Valley (San Mateo) Woodside (San Mateo) Unincorporated areas Independent Contractors General Public

FIGURE V.15 - Summary Landfill Information, continued

LANDFILL	DESIGN CAPACITY	PERMITTED CAPACITY	POSSIBLE EXPANSION(s)	DATE OF CLOSURE	AREAS SERVED
OWENS-CORNING	88 acres	To Be Determined	To Be Determined	TBD	Owens-Corning Fiberglas
PACHECO PASS	135 acres (3.9 m.t.)	96 acres (1.4 m.t.)	None	1998	City of Gilroy City of Morgan Hill Unincorporated areas
PALO ALTO	146 acres (1.7 m.t.)	146 acres (1.7 m.t.)	775,619 tons (approved)	1999	City of Palo Alto Stanford community
ALL PURPOSE	193 acres (11.4 m.t.)	193 acres (11.4 m.t.)	None	1992	City of Santa Clara
SUNNYVALE	93 acres (3.1 m.t.)	93 acres (3.1 m.t.)	None	1994	City of Sunnyvale
ZANKER ROAD	70 acres (3.5 m.t.)	46 acres (2.3 m.t.)	None	2003	Independent Contractors General Public



## EXISTING TRANSFER STATIONS

A transfer station is a facility used as a drop off point for large collection vehicles and/or individuals wishing to dispose of solid waste or recyclable materials. Wastes not recycled at the transfer station are hauled to landfills in large transfer trailers.

The two solid waste transfer stations operating in Santa Clara County are described below.

### San Jose Recycling

The San Jose Recycling Facility, formerly known as the San Jose Recycling and Transfer Station, is owned and operated by San Jose Recycling Center, Incorporated. The facility was first opened in 1977 as a transfer and recycling center. The present owners purchased the site in 1986, and the facility became fully permitted in June of that year. The facility currently serves the City of San Jose and surrounding communities.

Located at 291 Barnard Avenue, in central San Jose, the site has a variety of surrounding land uses including commercial, industrial, retail, and residential. It is zoned Heavy Manufacturing.

The facility accepts household rubbish, commercial solid waste, tires, and construction and demolition debris. The facility is not allowed to accept garbage or hazardous wastes.

Recyclable materials are separated from incoming loads. Recyclables include ferrous metals, aluminum, cardboard, and wood waste. Items not recycled are compacted on site before transport to nearby landfills. The facility also accepts clean recyclables directly, serving as a recycling buyback center.

The San Jose Recycling center has a design and permitted capacity of 460 cubic yards per day. The quantity of incoming wastes is 54,750 tons per year (150 tons per day, 7 days per week). Public disposal fees are \$6.00 per yard (recyclable) or \$8.00 per yard (non-recyclable), as of January 1988. Tipping fees are \$5.00 per yard (recyclable) or \$7.00 per yard (non-recyclable).

Current operating permits include

- CWMB Solid Waste Facility Permit (#43-AN-002 - June 13, 1986 ); and
- San Jose Site Development Permit (#H76-1-6 - February 9, 1976 ).

## San Martin Transfer Station and Recycling Center

The San Martin Transfer Station and Recycling Center is owned by Sunset Properties, Incorporated, and operated by South Valley Refuse Disposal Company, Incorporated. The site was opened in 1968, along with the San Martin Landfill, and continued to operate after the landfill closed in 1971. It presently serves the cities of Gilroy and Morgan Hill, and unincorporated areas of the south county.

The transfer station is located at 14080 Llagas Avenue, in the unincorporated south county community of San Martin.

Wastes accepted at the facility include residential refuse, yard clippings, brush, stumps, construction and demolition wastes, and commercial wastes. Infectious medical waste and hazardous waste are not accepted except as allowed by the Department of Health Services and the Santa Clara County Health Department. Used motor oil generated by homeowners is accepted but is limited to 5 gallons per container and a maximum of 20 gallons per shipment, as outlined in the California Health and Safety Code, Section 25250.11.

The facility salvages recyclable materials from incoming wastes. In addition, recyclables are redeemed at the station. The station consists of a large stationary compactor with a 20-cubic yard feed hopper and concrete dumping pad. Refuse can be unloaded directly into the compactor or dumped onto the pad and pushed into the compactor by a small tractor. After compaction, refuse is loaded into trucks and hauled approximately 10 miles to the Pacheco Pass Sanitary Landfill, located off of Highway 152 in south Santa Clara County.

Future plans call for expansion of recycling activities, including processing and shipping of materials from curbside collection in the cities of Morgan Hill and Gilroy. The facility also serves as a site for one-day, annual household hazardous waste collection events sponsored by the County and the cities of Gilroy and Morgan Hill.

The facility has a design capacity of 288 tons per day, and currently is operating at 100 tons per day. Over the next three to five years, tonnage may increase to 150 tons per day or more. Public disposal and tipping fees are \$5.00 per yard and up, depending upon the material (as of March 1989).

Current operating permits include

- CWMB Solid Waste Facility Permit (#43-AA-003 - November 11, 1987);
- RWQCB Waste Discharge Permit (#72-34 - May 12, 1972); and
- County Land Use Permit (#22 P72.4 - July 13, 1972).



## PROPOSED SOLID WASTE FACILITIES

Title 14 of the California Code of Regulations, section 17134, requires CoSWMPs to *"identify proposed facilities and include information such as type of operation, location, types, sources and quantities of wastes to be received, and the facility size or capacity."*

There are three proposed solid waste facility sites in Santa Clara County: the Recyclery adjacent to the Newby Island Landfill; the Sunnyvale Materials Recovery and Transfer Station; and the Guadalupe Mines Landfill expansion.

### The Recyclery

In August of 1988, a CoSWMP amendment outlining the development of a waste processing facility adjacent to the Newby Island Landfill received final approval from the CWMB. The proposed facility, named The Recyclery, will be owned and operated by International Disposal Corporation of California, a wholly owned subsidiary of Browning-Ferris Industries. The facility is expected to serve the Cities of San Jose, Milpitas, Cupertino, Los Altos, Mountain View and Santa Clara, the Town of Los Altos Hills, and the surrounding unincorporated areas.

The proposed facility will be located on a 10.77 acre site adjacent to the Newby Island Sanitary Landfill, off of Dixon Landing Road and Interstate 880, in northern San Jose. A series of mechanical and manual sorting systems will extract recyclable materials from the mixed waste stream received by the Newby Island Landfill. The facility will include a recycling buyback center as well as a recycling education center.

The Recyclery is projected to have a total design capacity of 1,000 tons per day. When opened in early 1990, the facility will process approximately 400 tons per day of mixed waste for sorting from the incoming waste stream, recovering approximately 300 tons per day of recyclables. Items to be recycled will include paper, glass, plastic, metal, wood, and cardboard. Refuse not pulled from the waste stream will be disposed of at the adjacent landfill.

Project proponents are proceeding with project permitting through the City of San Jose. In mid-1988, the City approved a Negative Declaration for the project. The site is in conformance with the City of San Jose's General Plan.

### Sunnyvale Materials Recovery and Transfer Station

The proposed Sunnyvale Materials Recovery and Transfer Station will be owned and operated by Waste Management of North America, Incorporated. It is anticipated that the facility will provide long-term solid waste recovery and disposal services for the Cities of Sunnyvale, Palo Alto, and Mountain



View, and the Stanford area, as well as a permanent, long-term local transfer and recycling facility for city residents and surrounding communities.

The transfer station will be located on a 15-acre site at the Sunnyvale Landfill, at the corner of Carribean Drive and Borregas Avenue, in the City of Sunnyvale. Projected to open in the spring of 1991, the facility will have a total design capacity of 2,200 tons per day. It will provide for recovery of materials through mechanical and source separated systems, and the transfer of non-recovered materials. The facility will also serve as a permanent, long-term local disposal and recycling facility for city residents and surrounding communities.

Recovered materials would include aluminum and ferrous metal scrap, cardboard, glass, high-grade and mixed paper, newspaper, plastic, white goods, landscaping and yard waste, and wood. Materials not recovered would be hauled to the Kirby Canyon Landfill in south San Jose. U.S. Highway 101 would serve as the primary transportation route between the transfer station and the landfill.

The site has been designated in the City of Sunnyvale's General Plan as a potential solid waste facility location. The City is currently in the process of completing an EIR on the transfer station. The County Health Department will serve as the local enforcement agency (LEA) for the site.

### **Guadalupe Landfill Expansion**

The proposed expansion would add approximately 50 acres to the existing 65-acre Guadalupe Landfill, located off of Guadalupe Mines Road, west of San Jose. The existing Class III landfill accepts residential, commercial, industrial, and demolition wastes for disposal, and is permitted to accept non-friable asbestos and high-moisture content waste.

As proposed, the expansion would increase landfill capacity from 1.2 million tons or 2 million cubic yards to 10.4 million tons or 18 million cubic yards. According to reports submitted to the RWQCB, 227,196 tons of waste was landfilled at the existing facility between July 1987 and June 1988. Based on a 4% annual growth rate, the expansion would allow the landfill to remain in operation until 2013.

The site owner is seeking annexation of the expanded site into the City of San Jose from the unincorporated area of the county. Should the site be annexed, it will remain in the West Valley Subregion, and current users will continue to have access to the landfill. The proposed site expansion and annexation into San Jose will not change existing disposal contracts and industrial and commercial disposal and public dropoff practices.

As proposed, the expansion is consistent with San Jose's General Plan as adopted in 1986. The project's EIR was certified by the City's Planning

Commission in November 1988 and the City Council in February 1989. The City Council also approved the Planned Development Zoning for the project in February. Annexation of the site is pending and a Planned Development Permit has not been filed. If the facility is annexed, the city will served as the LEA for the site.

## **INACTIVE SOLID WASTE FACILITY SITES**

Title 14, Section 17134, of the California Code of Regulations states that the CoSWMP *"as revised shall identify closed facilities."* Following are descriptions of inactive solid waste disposal sites in Santa Clara County.

### **Customer Utility/Bache Landfill**

The inactive Customer Utility/Bache Landfill is located near Coyote Creek and Schallenberger Roads in San Jose. The landfill accepted rubbish for disposal and is currently used as open space. The site is bordered by the Southern Pacific Railroad line to the east and Schallenberger Road and Coyote Creek to the south. Other surrounding land uses are primarily commercial.

### **Customer Utility II Landfill**

The inactive Customer Utility II Landfill is located in the vicinity of Coyote Creek and Commercial Street in San Jose. Rubbish was accepted for disposal at the facility between 1945 to 1968. The area is currently used as a storage area for concrete. The site is bordered by Coyote Creek to the east and north. Surrounding land uses are commercial and industrial.

### **Eastside Disposal Landfill**

The inactive Eastside Disposal Landfill is located in the vicinity of Coyote Creek and Hellyer Park, off Faris Drive, in San Jose. The landfill accepted mixed solid waste for disposal from 1968 to 1970. The area is currently used as open space in the Coyote Creek Open Space chain. The site is bounded by the Coyote Creek and Hellyer Park to the north and east, and residential homes to the west and south. Monitoring wells have been installed and an analysis completed by an engineering firm to comply with post-closure requirements.

### **G&M Construction Landfill**

The inactive G&M Construction Landfill is located near Melbourne and Jeanne Avenues in San Jose. The facility accepted around 80 tons per day of Class III demolition wastes from 1970 to 1974. The site is currently used as



open space (Martin Park). The area is bound by the Western Pacific Railroad tracks to the west, open space to the north (Olinder Park), and residential areas to the south and east. Two schools are located to the north and east of the site.

### **Gilroy Landfill**

The inactive Gilroy Landfill is located in the vicinity of Llagas Creek, at the east end of Luchessa Avenue in Gilroy. Around 40 tons per day of mixed waste was accepted for disposal at the landfill from 1955 to 1974. The 5-acre site is currently used as open space. Surrounding land uses are mostly agriculture and open space.

### **Marshland Developments Landfill (Edgewater Disposal Site)**

The inactive Marshland Developments Landfill is located near the northwest corner of Gold Street and Highway 237 in northern San Jose. The 60-acre landfill accepted demolition and dry rubbish waste for disposal from 1962 to 1981, when the site was ordered closed by the City of San Jose. The facility was issued RWQCB Waste Discharge Requirements in 1973, amended in 1979 (73-22, 79-160). In the spring of 1988, tentative Waste Discharge Orders were filed for closure of the facility.

Adjacent landfill sites include the inactive Santos landfill and the active All Purpose Landfill (City of Santa Clara). The site is bordered by salt evaporation ponds to the northeast, San Tomas Creek to the west, Highway 237 to the south, and Gold Street to the east. The Guadalupe River lies approximately 500 feet to the northeast. Other surrounding land uses include a Mobile Home Park (northeast) and the Southern Pacific Railroad tracks (east).

### **Moffett Field - Golfcourse Landfill Site**

This disposal site is located adjacent to the golfcourse, in the Moffett Field U.S. Naval Air Station, near the Cities of Mountain View and Sunnyvale. The facility accepted mixed waste for disposal from the 1940's to the 1960's. The inactive site has not been closed and is currently on the EPA Superfund Site List for hazardous materials clean-up.

### **Moffett Field - Runway Landfill Site**

This 4-acre disposal site is located within the Moffett Field U.S. Naval Air Station (Mountain View/Sunnyvale), adjacent to a runway. The site accepted mixed solid waste for disposal between 1962 and 1978. The inactive landfill is currently being used for equipment storage and is on the EPA Superfund Site List for hazardous materials clean-up.





# **CHAPTER VI**

## **RESOURCE RECOVERY**

### **Morgan Hill Landfill**

The inactive Morgan Hill Landfill is located near the City of Morgan Hill, north of Burnett Avenue, where Highway 101 crosses the Coyote Creek. The 53-acre landfill accepted approximately 10,000 tons per year of mixed solid waste between 1951 and 1975. Highway 101 bisects the site, which is currently used as open space. Surrounding land uses are open space and agriculture.

### **San Jose Rubbish/Roberts Road Landfill**

The inactive San Jose Rubbish disposal site is located east of Coyote Creek and south of Story Road, across the creek from Kelley Park, in San Jose. The facility accepted rubbish for disposal between 1930 and 1967. The site is currently used as open space. The site is bound by Coyote Creek to the west and south and Roberts Road to the east. Surrounding land uses include open space/parks and residential.

### **San Martin Landfill**

The inactive San Martin Landfill is located in San Martin, north of Llagas Creek, adjacent to the San Martin Transfer Station on Llagas Road. The 9.5 acre site was in operation between 1968 and 1971, accepting rubbish for disposal until October 1972. At that time, the Central Coastal RWQCB limited waste disposal to demolition wastes only. Bound by Llagas Avenue to the west and Llagas Creek to the south, the site is currently used by the transfer station owner for storage of concrete.

### **Santos Landfill (Sainte Claire Landfill)**

The inactive Santos Landfill is located east of Gold Street and north of Highway 237, near Guadalupe Creek, in northern San Jose. The landfill accepted rubbish for disposal from 1947 to 1963. The site is bound by Moffet Street to the north, Gold Street to the west, Highway 237 to the south, and open space to the east. A Mobile Home Park is currently located on a portion of the southern part of the site. The area was partially excavated to re-align Guadalupe Creek, which runs through the center of the site. Adjacent inactive landfill sites include the Marshland Developments landfill to the west.

### **Singleton Road Landfill (San Jose Disposal Grounds)**

The inactive Singleton Road Landfill, also known as the San Jose Disposal Grounds, is located west of Coyote Creek, on the north and south sides of Singleton Road in San Jose. Around 190 tons of rubbish per day was landfilled at the 80-acre site between 1966 and 1973. The site is bound by the



Capitol Expressway to the north, Tuers Road and Coyote Creek to the east, and residential areas to the south and west.

In 1981, closure requirements for the site were issued (order #81-1), and a post closure self-monitoring program was adopted in January 1985. In 1986, the RWQCB adopted order #86-39 allowing Genstar Gas Recovery Systems, Incorporated, and the City of San Jose to install and operate a methane recovery system. That system was removed and is being replaced with a flare.

### **Stierlin Road Landfill (Ferrari Landfill)**

The inactive Stierlin Road Landfill, also known as the Ferrari Landfill, is located east of Shoreline Boulevard (formerly Stierlin Road), near Mountain View's Shoreline Park entrance. The facility accepted mixed solid waste for disposal from 1964 to 1988. The site is bound by Shoreline Park to the west and north, the City of Mountain View's landfill gas recovery plant to the east, and commercial areas to the south.

The facility was purchased by the City of Mountain View from the Ferrari Brothers in 1984. The CWMB ordered the city to cease operations at the site in the spring of 1988 due to permitting problems. The site, still owned by the city, is currently not in use.

### **Story Road Disposal Grounds**

The inactive Story Road Disposal Grounds site is located to the east of Coyote Creek between Story Road and Highway 280 in San Jose. The landfill accepted rubbish for disposal between 1959 and 1969. The site is bound by Interstate 280 and residential areas to the north, open space land to the east and west, and Kelly Park and Story Road to the south.

Some portions of the site were sold and developed by private companies. The remaining portions are currently used as open space.

### **West Valley Disposal Grounds**

The inactive West Valley Disposal Grounds site is located south of Los Gatos Creek at Campisi Drive, near Bascom and Hamilton Avenues in Campbell. The facility accepted rubbish for disposal from 1955 to 1965. The site is bound by Los Gatos Creek and an office complex to the west, Bascom Avenue to the east, and Hamilton Avenue to the north. Campisi Drive bisects the property, which is currently used as open space. Other surrounding land uses include commercial developments and open space. State Highway 17 is located just west of the site.



# CHAPTER VI

## RESOURCE RECOVERY





## OVERVIEW

---

Resource Recovery encompasses all forms of materials and energy reclamation from the waste stream. Resource Recovery not only utilizes the valuable resources found in solid waste, but also saves another resource -- landfill capacity.

Resource Recovery activities fall into four broad categories:

***Source Reduction:*** Preventing entry of materials into the waste stream through such means as double-sided copying, using ceramic coffee cups instead of styrofoam, using cloth instead of disposable diapers.

***Reuse:*** Using goods or materials again without remanufacture. Goods may be cleaned or repaired for use by the same or a new owner.

***Recycling:*** Recovering materials from the waste stream for remanufacture. Curbside and drop-off programs collect recyclable materials such as used cans, bottles, newspapers, and PET plastics for processing into "new" goods.

***Energy Recovery:*** Capturing energy in waste materials through such processes as methane recovery systems at landfills and waste-to-energy facilities.

Resource Recovery, and especially recycling, continues to receive steadily-increasing amounts of attention. Since the 1984 Plan Revision, State legislation has been passed requiring CoSWMP revisions prepared after January 1, 1988 to set a goal of recycling 20 percent of the solid waste generated in the county. In 1988, Santa Clara County adopted a CoSWMP amendment which set a goal of reducing the amount of waste disposed of in landfills by 25 percent by 1995. In 1989, AB 939 mandated a 25 percent reduction by 1995 and a 50 percent reduction by 2000.

## HISTORY OF RESOURCE RECOVERY IN SANTA CLARA COUNTY

Resource Recovery has always been included in waste management practices in Santa Clara County. Before 1956, usable materials (metal, bottles, paper, and rags) were sorted on the collection trucks and removed from the waste stream; and household garbage was collected and fed to hogs. Any waste left was then burned. The introduction of modern compactor trucks put an end to enroute sorting.

Since 1961, the Guadalupe Landfill has had a salvage operation to recover materials from the waste stream. Usable materials are manually separated and removed. Guadalupe was the site of the first local attempt to produce Refuse Derived Fuel (RDF). An RDF facility was constructed in 1966, but was closed in 1971 due to technical difficulties.

In the late 1960s and early 1970s, growing environmental concern launched the modern recycling movement. Municipal and privately-run drop-off recycling programs were begun in most local communities. The Cupertino and Palo Alto programs began in 1971 and continue to operate today.

The *State Policy for Solid Waste Management*, adopted in 1974 by the State Solid Waste Management Board (now the CWMB), aimed to reduce the statewide annual quantity of residential and commercial wastes disposed of in landfills by 25 percent between 1972 and 1980. Because adequate markets for recovered materials were not developed, many recycling programs begun at that time were unsuccessful.

## RECOVERABLE MATERIALS IN THE COUNTY WASTE STREAM

A comprehensive, countywide waste composition study has not been performed in Santa Clara County. However, several studies have been conducted to determine the quantity of recoverable materials in specific portions of the county waste stream.

In 1983, the North County Solid Waste Management Authority (SWMA) conducted a comprehensive waste characterization study, which revealed that a significant portion of the waste stream is recyclable. According to that study, mixed paper and corrugated cardboard together make up over 50 percent of the total waste stream of the jurisdictions studied. This high percentage demonstrates the need for commercial/industrial recycling to meet waste stream reduction goals.

More recently, three waste composition studies have been undertaken in Santa Clara County jurisdictions:

- The City of Santa Clara, Feasibility of Transfer/Materials Recovery Facility (September 1988)
- Browning-Ferris Industries, Inc., Newby Island Recyclery Study, (August 1987)
- Waste Management, Inc. Sunnyvale, Mountain View, Palo Alto, and Stanford, November 1988

Though the studies were conducted by different consultants using different methodologies, all show a high percentage of paper and corrugated cardboard in the commercial/industrial waste stream, and a high percentage of yard waste in the residential waste stream.



## PERCENTAGE OF RESIDENTIAL VS. COMMERCIAL/ INDUSTRIAL WASTE BY LANDFILL

Countywide percentage of waste generated from residential versus commercial/industrial sources was determined through a survey of landfill operators in the county. Operators recorded the amounts of waste transported to each landfill in various types of vehicles. Proportions of residential versus commercial/industrial waste at each landfill were estimated based on the type of haul vehicle.

Residential waste is normally transported in rear or side loaders, private cars, and pickup trucks, so wastes arriving in these types of vehicles were counted as residential. Some operators were able to estimate the amount of multi-family residential waste that arrived in front loader vehicles as well. All other wastes transported by front-loader, dropbox, roll-off, compactor, and landscape/yard vehicles were counted as commercial/ industrial.

The survey resulted in an estimate that at least 57 percent of the countywide waste stream is commercial/industrial waste and that only one landfill receives more residential waste than commercial/industrial waste. See Figure VI.1.

FIGURE VI.1: Waste Stream Composition\*: FY 87-88 (percents)\*

LANDFILL	RESIDENTIAL	COMMERCIAL
Palo Alto	30%	70%
Mountain View	37%	63%
Sunnyvale	46%	54%
Santa Clara	46%	54%
Newby Island	49%	51%
Zanker Road	10%	90%
Guadalupe	32%	68%
Kirby Canyon	57%	43%
Pacheco Pass	25%	75%
COUNTYWIDE**	43%	57%

\* As computed from type of vehicle in which waste arrives at each landfill. For tonnage figures for each landfill, please see Chapter V.

\*\*The countywide percentage is computed from the total amount of waste landfilled in Santa Clara County.

## WASTE STREAM REDUCTION GOALS

---

Before the passage of AB 939, California Government Code Section 66780.5(f) required that all CoSWMP revisions occurring after January 1, 1988 establish a goal of recycling 20 percent of the solid waste generated in the county, and list actions the county will take to achieve this goal. Santa Clara County established a goal which exceeded the State requirement in the 1988 CoSWMP Amendment to Combine the North and Central Subregions, which contained the following provision:

*To decrease the flow of wastes filling valuable landfill space and to assist in meeting the requirements of Section 66780.5 of the California Government Code (as amended by AB 1462 of 1987), each city in the county shall submit annual reports to the Intergovernmental Council outlining programs and plans to reduce the amount of wastes disposed of in landfills 25%, calculated between January 1, 1978 and January 1, 1995.\* The Intergovernmental Council shall report annually on the amount of wastes recycled and the level of budgetary commitment made to pursue recycling by each city in the county.*

*\*Acceptable methods for calculating the 25% reduction must be agreed to by the IGC.*

Every jurisdiction in Santa Clara County is committed to do what is feasible and reasonable to help in achieving the countywide goal of reducing the amount of waste disposed in landfills by 25 percent by 1995.

At present, there are difficulties inherent in measuring results of efforts toward goal achievement. No single standard for measurement is used countywide. Different definitions of garbage and rubbish are used in collection contracts and franchise agreements around the county. In smaller cities, difficulty determining the amount of waste landfilled occurs because collection routes do not follow lines of incorporation, and wastes from two or more cities can arrive at landfills in the same truck. Estimates of current recycling in local jurisdictions range from 2 percent to 25 percent of city waste streams.

These factors make it difficult to set and then measure progress toward achieving a city-by-city 25 percent reduction goal. Discussion about the amount of each city's waste stream that is recyclable is taking place. A city relying solely upon curbside or dropoff programs may not be able to meet a 25 percent recycling goal. Alternatives include commercial/industrial recycling and yard-waste composting programs.

For these reasons, progress toward achieving the 25 percent goal will be calculated on a countywide, per-capita basis. An estimate of the total annual amount of refuse diverted from the countywide waste stream will be made beginning in fiscal 1989-90. Fiscal 1989-90 was selected because more accurate

disposal and recovery figures should be available by that time. Scales will be installed and operating at most landfills, and the annual reporting mechanism called for in the 1988 Subregional Policy amendment will be in place. A base number will be calculated in fiscal 1989-90, using the data collected.

This base number will then be used in each succeeding year in the formula. As the amount of waste landfilled decreases, progress can be measured against the amounts in the baseline year. Periodically, a new baseline number can be calculated, perhaps in Plan Review years. Each jurisdiction will continue to report annually on steps taken to contribute to the countywide goal.

## COMPUTING WASTE STREAM PERCENTAGE RECYCLED

Before all jurisdictions could agree to use a single measurement standard, three questions needed to be answered:

- What is the waste shed?
- What is the waste stream?
- What will be counted (as waste stream reduction)?

### 1. What is the waste shed?

The waste shed for each city is defined as the area enclosed by corporate city limits, plus unincorporated areas that are serviced by franchised haulers.

### 2. What is the waste stream?

To identify percentage recycled, the waste stream is defined as material actually being landfilled plus whatever is diverted from landfilling through reuse or recycling. The latter group includes

- Municipally operated or contracted curbside and drop-off programs;
- Salvaging at the refuse transfer station or the landfill;
- Processing and composting of yard waste at the landfill;
- Private sector collection or buy-back services;
- Nonprofit collection activities or drop-off sites;
- Scavenging;
- Commercial/Industrial at-the-source separation;
- Concrete and asphalt recycling operations.



### 3. What Will Be Counted?

The following definitions will be used to determine what materials will be counted as waste kept out of landfills in Santa Clara County:

**Solid Waste:** *"Municipal Solid Waste" means all substances or materials that are generally discarded or rejected as being spent, useless, worthless, or in excess to the owners at the time of rejection, including, without limitation, trash, garbage, refuse and rubbish, and which are generated by all residential, commercial, industrial, institutional, municipal, agricultural and other activities . . . ; however, Municipal Solid Waste does not include Hazardous Waste, Biomedical Waste, and Ash. (Source: Disposal agreement between the International Disposal Corporation and the cities of Cupertino, Los Altos, Los Altos Hills, Mountain View and Santa Clara.*

**Waste Stream Reduction:** Any legal act which reduces the amount of waste being buried in landfills. In Santa Clara County, this term will be used to mean "any legal act that keeps material out of the landfill, before or after it enters the waste stream."

**Reuse:** Reuse of goods or materials by the same or a new owner without being reprocessed or transformed. Reuse includes goods or materials that have been reclaimed (i.e., washed or repaired).

**Recycle:** Recovery and processing of wastes for use as material feedstock for further use or processing. In Santa Clara County, recycling will be further defined to mean only the quantity of wastes recovered within the county in a given year. This definition assumes that the recovered wastes will be used in the production of new goods.

**Recyclable:** Any wastes which may be recycled or reused (i.e., refillable soda bottles, repairable items. A list of recyclable materials in the waste stream would include but not be limited to

- Corrugated Paper (corrugated boxes, packing material, and cardboard),
- Newspaper,
- Mixed paper (includes magazines, colored paper),
- White office paper,
- Computer paper,
- Glass containers,
- Plastics (PET, HDPE, other),
- Cans (aluminum, other),
- Redeemable bottles and cans (glass, aluminum and PET),
- Foam rubber,
- Scrap metals,
- Good clothing and reusable items,
- Yard waste (includes tree trimmings, grass clippings),
- Rags,
- Electronic media (magnetic tapes, computer diskettes),

By-products of electronics production,  
Wood waste, and  
Concrete/Asphalt.

## MEASURING PROGRESS TOWARD GOAL ACHIEVEMENT

To provide a countywide standard for estimating annual waste stream reduction, a three part formula was developed:

1. Calculate the amount of refuse generated per person per day in the baseline year. This calculation need only be done once (or possibly only in Plan Review years) and used in subsequent years:

PCDL = pounds per capita per day landfilled

BPCD = pounds per capita per day of refuse generated in Santa Clara County in the baseline year.

L = estimated annual tonnage of refuse generated in Santa Clara County and landfilled.

R = estimated annual tonnage of refuse recovered which is to be credited toward baseline amount.

P = population of Santa Clara County as of January 1 of year to be analyzed.

$$BPCD = \frac{L + R}{P} \times \frac{2000}{365} \text{ (pounds per ton)} \text{ (days per year)}$$

2. Each year, calculate the amount of waste landfilled in the county per capita per day:

$$PCDL = \frac{L}{P} \times \frac{2000}{365}$$

3. Calculate the percent of the total waste stream being diverted from landfill:

$$\% \text{ Diverted} = 1 - \frac{PCDL}{BPCD}$$

Figure VI.2 illustrates how the formula can be used, using estimates for fiscal 1987-88. While the amount of waste landfilled that year and the population figures are readily available, data on the amount of refuse diverted from the landfill is not. For this reason, 1987-88 can only be used as an example and not a baseline year.

FIGURE VI.2: Formula Calculations: Example

---

**Percent of Waste Stream Recycled in FY 87-88**  
(all figures rounded to nearest 100)

---

L = (Annual Tonnage <sup>1</sup> )	1,811,700 tons
R = (Amount Recovered <sup>2</sup> )	347,200 tons
P = (Total Population <sup>3</sup> )	1,431,600

1. Calculate the amount of refuse generated in the county per person per day (BPCD):

$$\text{BPCD} = \frac{L + R}{P} \times \frac{2000}{365} \text{ (pounds per ton)} \text{ (days per year)}$$

$$\text{BPCD} = \frac{1,811,700 + 347,200}{1,431,600} \times \frac{2000}{365} = 8.263 \text{ lbs.}$$

2. Calculate the amount of waste landfilled in the county per capita per day (PCDL):

$$\text{PCDL} = \frac{L}{P} \times \frac{2000}{365}$$

$$\text{PCDL} = \frac{1,811,700}{1,431,600} \times \frac{2000}{365} = 6.942 \text{ lbs.}$$

3. Calculate the percent of the total waste stream being diverted from landfill:

$$\% \text{ Recycled} = 1 - \frac{\text{PCDL}}{\text{BPCD}}$$

$$\% \text{ Recycled} = 1 - \frac{6.942}{8.263} = 16.0\%$$

---

<sup>1</sup>Regional Water Quality Control Board Quarterly Reports

<sup>2</sup>Figure includes:

Total Curbside/drop-off as reported in Figure VI.3	36,294
All Purpose Landfill Salvaging (City/Operator estimate)	15,450
Guadalupe Landfill Salvaging (Owner's estimate)	45,433
Raisch Paving Company Salvaging	107,000
Zanker Road Recycling (RWQCB Reports)	29,311
San Martin Transfer Station (Owner's estimate)	550
Palo Alto - Estimate of private cardboard recycling	300
Palo Alto - Circo Restaurant/Bar Glass Recycling	360
Palo Alto Composting Program	1,460
Private Sector Recycling (Springer Report estimate)	111,000

TOTAL: 347,158

<sup>3</sup>State of California Department of Finance Summary Report



Collection of comprehensive information on countywide recycling and recovery programs is difficult. While most publicly-run recycling and recovery programs keep fairly comprehensive records, most private-sector recyclers are reluctant to provide information on amounts recovered.

Obtaining accurate information from private-sector recyclers remains a problem. Further study will be undertaken by the County Solid Waste Program staff and the Technical Advisory Committee. Work may include evaluation of the cost effectiveness of a third party survey to collect the necessary information from individual recyclers while protecting anonymity.

Another way to acquire comprehensive information is by collecting information from waste generators, with each jurisdiction surveying the commercial/industrial establishments within its boundaries. Also, when the Recyclery and the North County Materials Recovery and Transfer Station begin operations, accurate figures on the amount of waste recovered at these facilities will be available.

By using waste generator information sources, estimating the amount recycled will be possible, without requiring data from private-sector recyclers or incurring the expense of a third-party survey. Double counting of source-separated material (once by the generator and again by the processor) must be guarded against.

A major advantage of using the formula and the baseline year is that waste stream reduction actions will affect tons landfilled. For example, if the City of San Jose were to begin to encourage groups, schools, or individuals to compost their own yard clippings, measurement of actual amount of material diverted from the waste stream would not be possible. Instead, efforts would result in less refuse going to the landfill, which would show up in the estimate made the following year, using the base number.

This calculation method could be a disadvantage in the event of a downturn in the local economy. If less manufacturing took place due to a recession, less refuse would be produced and less would end up at the landfill. Such reductions should not be counted toward recycling and recovery efforts.

One safeguard against such error would be to use waste composition studies to identify municipal solid waste by source (residential, commercial, or industrial). Although ultimately a severe economic downturn would affect all three sources of waste, identification of waste by source would avoid erroneously attributing subtle changes in the business climate to waste reduction success. A cost-benefit determination of waste composition studies will be made as part of this Revision's workprogram.

## WASTE STREAM REDUCTION/RECYCLING ESTIMATE: FY 87-88

Even though the first baseline year will be fiscal 1989-90, the formula can be applied to fiscal 1987-88 figures, resulting in a waste stream reduction/recycling estimate of 16 percent.

This estimate is based on

Annual tonnage landfilled as reported to the RWQCB by each disposal site operator and the recalculation of Newby Island Landfill compaction rates;

Amount of waste recovered (formula "R") has been estimated by adding the quantities listed in footnote 2 of Figure VI.3.

Amount of salvaging estimated at All Purpose Landfill in Santa Clara, includes 15,000 tons of concrete, 400 tons of corrugated cardboard and 50 tons of miscellaneous materials, mostly scrap metal.

Amount of salvaging estimated at the Guadalupe Disposal site, includes 9,265 tons of concrete and asphalt, 9,606 tons of soil, 18,540 tons of wood waste fuel, 6,060 tons of soil amendments, and 1,963 tons of miscellaneous materials.

Estimate of materials recycled at the Zanker Road Resource Management Site was taken from waste monitoring reports submitted by Zanker to the Regional Water Quality Control Board.

The biggest unknown component in the 1987-88 "R" is the amount of recycling being done countywide by private scavengers and secondary materials processors, brokers, and mills. Tim Springer, in a report entitled "Definitions for Recycling and Methods of Measuring Recycling in Santa Clara County" (July 1988) estimates this figure at 111,000 tons per year, based on limited input from materials processors (Table 8, Waste Shed Data). Springer attempted to survey the secondary materials markets, but achieved inconclusive results. Most brokers were reluctant to share their business secrets, which include to whom they buy and sell, and the amount of material involved.

For purposes of this analysis, the figure 111,000 tons will be used as an estimate for private sector recycling not covered in the estimate as described above. Once the reporting mechanism is in place and research has been done by the each jurisdiction, the estimate of "R" can be verified or revised.

## 20 PERCENT RECYCLING GOAL: ESTIMATE OF ACHIEVEMENT

Assuming that the fiscal year 1987-88 recycling rate was 16 percent, Santa Clara County is expected to meet the State-mandated 20 percent recycling goal in fiscal 1991-92, and the countywide goal of 25 percent waste stream reduction in fiscal 1994-95.

## EXISTING RECYCLING PROGRAMS

---

Recycling in Santa Clara County includes more than residential curbside and dropoff recycling programs. Yard waste composting, wood waste recovery, and commercial/industrial recycling programs contribute to the estimated 16 percent countywide recycling rate.

In 1988, two Santa Clara County cities and one private company won awards for their excellent recycling programs. The CWMB presented awards to the City of Palo Alto for Best Multimaterial Recycling Center, and to the City of San Jose for Best Large-Scale Curbside Recycling Program. The City of San Jose's Curbside Program also was named Best Curbside Recycling Program by the National Recycling Coalition (NRC). The NRC also recognized the leadership of National Semiconductor Corporation with an award for Outstanding Business Recycling.

### COMMUNITY CURBSIDE AND DROP-OFF RECYCLING PROGRAMS

Drop-off recycling programs have existed in Santa Clara County since 1971. The first curbside programs in the county began in 1982, in the cities of Los Altos and Sunnyvale. See Figure VI.3 for information on quantities recycled through city curbside and dropoff recycling programs and Figure VI.4 for a summary of city programs in fiscal year 1987-88.

In 1984, only 15 percent of the residents of Santa Clara County had an opportunity to participate in curbside recycling. By December 1987, the percentage had risen to 75 percent, as San Jose extended its program citywide and Mountain View initiated its program.

By early 1990, thirteen of the fifteen cities in the county were operating curbside collection programs, extending curbside participation opportunities to 95 percent of county residents.

The City of San Jose operates the largest voluntary curbside program in the nation.



FIGURE VI.3: Curbside and Drop-off Recycling: Quantities FY 87-88

CITY	COMMODITIES -- (in tons per year)						TOTAL
	Cans	Glass	Newsprint*	PET/Plastic	Other**	Waste Oil	
Cupertino	70	200	750	not weighed	25	80	1,125
Los Altos	119	718	1,585	0	0	24	2,446
Los Gatos	3	131	103	minimal	65	25	327
Milpitas	0	0	0	0	0	46	46
Mtn. View	146	301	786	not weighed	0	28	1,261
Palo Alto	169	1,480	3,996	3	1,135	30	6,813
San Jose	622	3,812	14,282	13	0	0	18,729
Santa Clara	minimal	minimal	30	minimal	minimal	minimal	30
Saratoga	4	131	480	1	45	10	671
Stanford	3	90	235	not weighed	0	0	328
Sunnyvale	233	1,018	3,068	not weighed	114	109	4,542
TOTAL	1,369	7,881	25,315	17	1,384	352	36,318

\* Approximately 50 additional tons are set out by residents and collected by scavengers before trucks arrive.

\*\* Palo Alto = cardboard, 460 tons; scrap metal, 580 tons; scrap aluminum, 8 tons; high grade paper, 80 tons.  
 Sunnyvale = cardboard, 96 tons; white office paper, 18 tons.  
 Los Gatos = cardboard, 15 tons; scrap metal, 37 tons; wine bottles, 13 tons.  
 All other cities = cardboard only.

FIGURE VI.4: Summary of City-Supported Curbside and Drop-off Programs FY 87-88

City	Program Type	Year Started	Cost to Run (FY 87-88)	Revenues (sales)	Balance Recouped	Quantity (tons)	Households Served
Cupertino	drop-off	1971	\$ 30,000	\$ 30,000	n/a	1,125	17,100
Los Altos	curbside	1982	182,304	120,321	Collection bill surcharge	2,446	10,800
Los Gatos	drop-off	1981	12,606	12,606	n/a	327	9,000
Mtn. View <sup>1</sup>	curbside	1987	200,000	67,000	2.8% of collection fees	1,300	13,300
	drop-off					200	
Palo Alto <sup>2</sup>	curbside	1978	734,013	440,120	Covered by collection fee	6,812	15,500
	drop-off	1971					
San Jose	curbside	1985	3,200,000	1,600,000	City General Fund	18,729	177,000
Santa Clara <sup>3</sup>	curbside	1977	minimal	minimal	n/a	30	87,984
	dropoff	1977	minimal	minimal	Collection fee		
Saratoga	drop-off	1975	26,000	22,000	Reserve balance	669	9,970
Stanford	curbside	1987	28,097	16821	Covered by collection fee	328	826
Sunnyvale <sup>4</sup>	curbside	1982	477,986	354,240	Covered by collection fee	4,542	28,000
	drop-off	1972					

<sup>1</sup>Curbside totals for 9 months: October 1987-June, 1988

<sup>2</sup>Totals for curbside and drop-off programs combined

<sup>3</sup>Bundled newsprint only

<sup>4</sup>Totals for curbside and drop-off programs combined; Program also receives additional \$52,000 per year for processing and marketing materials for other cities.

## Curbside Scavenging

Unauthorized scavenging of curbside setouts is considered a problem in most jurisdictions, but one that can be controlled fairly easily. Incidence of scavenging is closely tied to market prices for materials. The sharp drop in newsprint prices reduced the amount of newspaper scavenging. High aluminum prices have resulted in increased scavenging in some locales (especially Stanford University), but have also resulted in fewer setouts by residents.

All cities have anti-scavenging ordinances in place, and enforcement at current levels is considered sufficient to control the problem. In all cities, an increase in curbside scavenging would prompt increased public education, stricter enforcement of existing ordinances, and more police and resident vigilance.

San Jose residents are encouraged in news articles and program brochures to report scavenging activities in progress or theft from recycling bins. Staff from the Environmental Enforcement Division are authorized to conduct surveillance activities based on residents' reports.

In Los Altos, the police have been asked to watch areas where recyclables have been set out in the early morning hours.

Mountain View and the Stanford University area encourage residents to report thefts to police.

Sunnyvale's Public Safety Department will follow a vehicle which is repeatedly sighted scavenging, stop it, and then escort it to the Recycling Center to deposit materials collected.

Figure VI.5: Estimated Annual Revenue Loss from Curbside Scavenging

Jurisdiction	Aluminum	Newsprint	Plastic	Other	Total
Los Altos	unknown	unknown	unknown	unknown	unknown
Mountain View	\$ 4,800	\$ 7,500	\$ 50	<\$ 207 <sup>1</sup>	\$12,143
Palo Alto	unknown	unknown	unknown	unknown	unknown
San Jose	\$25,000- \$50,000	\$40,000- \$80,000	minimal	minimal	\$65,000- \$130,000
Santa Clara	n/a	\$ 1,000	n/a	n/a	\$ 1,000
Stanford	\$ 600	none	none	none	\$ 600
Sunnyvale	unknown	unknown	unknown	unknown	unknown

<sup>1</sup> Mountain View reports a cost savings of \$207 a year resulting from theft of tin cans.



## COMPOSTING

After mixed paper, yard waste is the largest component of a municipal waste stream. Composting of yard wastes represents an opportunity to reduce the waste stream volume significantly. All jurisdictions will be encouraged to consider programs.

The City of Palo Alto operates a drop-off composting program. In 1987, their facility accepted almost 22,000 cubic yards of plant material and produced a little over 9,000 cubic yards of finished compost, which will be used as final cover at the landfill.

The City of San Jose produced a Yard Waste Composting Implementation Plan in August 1988. A pilot curbside yard waste collection program began in early 1989, which collects unbundled yard wastes from 7,500 single-family residences. After processing, the resulting compost will be used on city parklands and other properties.

## WOOD WASTE RECOVERY

Wood waste is generated by tree trimmers, landscapers, gardeners, manufacturing concerns and demolition and construction companies. At present, three wood waste recovery operations process such wastes into wood chips for use as soil amendments or fuel for biomass burners:

- The Guadalupe Mines Landfill has operated a wood waste recovery operation since 1987. First, wood waste is fed into a grinder. After grinding, a trommel screen sorts the material; chips are sold as fuel for wood-fired boilers in Northern California, and fines are marketed as a soil amendment. In fiscal 1987-88, approximately 20,000 tons of wood waste were recycled at Guadalupe.
- Zanker Road Resource Management operates a wood recovery facility using a tub grinder. Contaminants are hand-sorted out of loads of wood waste and a skip loader moves the wood waste to a conveyor leading to the grinder. After grinding, the material crosses a screen which separates the fines (smaller than 1/4 inch) from the chips (1/4 inch to less than 3 inches). The fines are marketed as Zanker Humus and the chips are sold for use in wood-fired boilers. Approximately 22,160 tons of wood waste were reclaimed at Zanker Road Resource Management in fiscal 1987-88: 22,160 tons of wood chips and 4,279 tons of compost.
- Diversified Recycling Services (dba San Jose Recycling II) processes wood through a tub grinder/trommel system. Fines and dirt are removed and sold as ground covering and soil amendments. At the present time, 50-75 tons of hog fuel is processed and shipped daily; 100-200 yards of soil amendment is generated daily.

## RECYCLING AND SALVAGING AT TRANSFER STATIONS

Transfer stations, in addition to being a transfer point for waste, can also serve as points for collection and separation of recyclable materials. The county has two permitted transfer stations.

### San Martin Transfer Station

The San Martin Transfer Station currently buys source-separated aluminum, glass, and paper from residents. In addition, corrugated cardboard and all metals, including appliances, are salvaged and sold. The owner/operator estimates that approximately 550 tons of material are salvaged annually.

The facility is a Certified Recycling Center in the State 20/20 Program, and is the processing yard for Gilroy's curbside recycling program.

### San Jose Recycling and Transfer Station

The San Jose Recycling and Transfer Station concentrates on metals and wood recovery (as of November 1988). A smaller amount of corrugated cardboard and undamaged auto batteries are also salvaged. Metal is sorted for resale: cast iron, steel, tin, and different grades of aluminum, brass, and copper. The operation accepts approximately 50 tons of material per day, down from 150 tons per day. Of this, about 35 percent is recycled.

Most of the waste comes in loads of mixed rubbish from the general public and small commercial accounts (roofers, tree-trimmers) and is hand-sorted. A discount of \$2.00 per load is given for "pure" loads (wood, yard waste, metal, or cardboard).

Long-range plans include installation of a mechanized sorting system. A wood processor designed to pull wood out of mixed loads will be part of that system. This will enable the facility to accept industrial rubbish loads from collection companies.

## SALVAGING AT LANDFILLS

### All Purpose Landfill, City of Santa Clara

All Purpose Landfill manually separates and removes cardboard (about 400 tons per year) and scrap metal (about 50 tons per year) from the face of the landfill.

Concrete received at the site is broken up and utilized as part of the leachate collection layer in lieu of gravel. Approximately 15,000 tons of concrete material are recycled annually in this manner.

## Guadalupe Disposal Site

In addition to manual recovery of metal and paper, workers at the Guadalupe Disposal Site also salvage items such as mattresses, tires, and flower pots. About 2,000 tons of material are recovered annually.

Concrete and asphalt, when delivered to the site in concentrated loads, are segregated and used in place of rock and gravel for drainage construction, erosion control, road base, and winter tipping pads. Some material is sold to off-site users. From 6,000 to 12,000 tons are recovered annually.

Clean loads of soil are set aside for future use as cover material; some may be sold to off-site users. Around 9,500 tons of soil are recovered annually.

## COMMERCIAL/INDUSTRIAL RECYCLING

Waste from the commercial/industrial sector of the county makes up at least 57 percent of the countywide waste stream and represents an even larger proportion of the waste stream in some cities. Commercial/industrial wastes are rich in recyclable materials, including office paper, cardboard, glass, and a variety of metals. For this reason, commercial/industrial recycling efforts are essential to achieving the 25 percent waste stream reduction goal.

Since the 1984 Plan Revision, significant progress has been made in commercial/industrial recycling. Part of this waste stream is already being recovered by several privately-owned recycling firms. A list and brief description of these firms is presented in Appendix B.

Exact information on amounts of material processed is unavailable. An objective of this Revision's workprogram is to develop a database on waste reduction and recycling activities. Because processors are reluctant to reveal information, information from waste generators and from third-party surveys of processors would provide the required information for this database.

## The Santa Clara County Manufacturing Group

In 1987, the Santa Clara County Manufacturing Group formed a Solid Waste Task Force to encourage member companies and others to initiate recycling activities. The Task Force's primary focus is waste handling methods and ways to reduce disposal costs. Some of the county's largest employers have successful in-house recycling programs in operation, including Hewlett Packard, National Semiconductor, and Signetics.

Since 1986, the Group has worked to encourage recycling among its member companies, sponsoring workshops and most recently, publishing the "Guide



to Commercial Recycling," a complete handbook on how to set up a commercial/industrial recycling program.

A representative of the Task Force is now a full voting member of the IGC Solid Waste Technical Advisory Committee, assuring local industry a voice in countywide solid waste management planning.

### **Palo Alto**

Palo Alto Sanitation Company, the city's franchised collector, has collected white and computer office paper since 1985 (approximately 81 tons per year). A limited amount of corrugated cardboard is also collected; the amount is included in the 460 tons under Curbside and Drop-off recycling. An additional 300 tons of cardboard per year are removed from the waste stream by paper brokers who buy directly from these accounts and by small salvagers when the market price is high. Approximately 360 tons per year of restaurant and bar glass is collected by Circo Glass in Palo Alto.

The City of Palo Alto offers free recycling consulting services to members of the commercial/industrial sector. This service provides technical advice on starting and administering in-house recycling programs.

### **Stanford University**

Peninsula Sanitary Service, franchised hauler for Stanford University, has operated a Student Recycling Program since 1978. It serves academic buildings and two student dormitories. A total of 1025 tons of source-separated commodities are collected annually, including 91 tons of white paper, 71 tons of computer paper, 228 tons of corrugated, 27 tons of mixed paper, 203 tons of glass, 371 tons of newsprint, 6 tons of aluminum cans, and 6 tons of tab cards. The program costs \$81,620 per year, of which \$72,542 is recouped through the sale of materials.

### **San Jose**

The San Jose City Council approved a Commercial/Industrial Recycling Implementation Plan in October of 1988. A model program should be in operation by mid-1990. Several recycling firms have contracts with businesses in the City of San Jose, and City offices now use recycled paper.

### **Santa Clara**

The City of Santa Clara has funded a half-time position to assist the Deputy Director of Public Works in implementing a recycling program for the commercial/industrial sector.

Non-exclusive franchise haulers in industrial-zoned areas of the City can reduce their franchise fee from 8 percent to 5 percent of gross billings by meeting at least one of the following conditions:

- Refuse collected is disposed at a facility which separates and recycles at least 5 percent of the total volume of refuse received from that contractor;
- At least 10 percent of the total volume of refuse collected is disposed at a resource recovery facility which reduces the volume of refuse received for disposal by at least 25 percent;
- The contractor has a designated recycling coordinator program representative who (1) contacts each industrial customer in the City once every two years to discuss the various types of recycling possibilities available for the customers; (2) works with each new customer concerning recycling options; (3) documents contact with each customer and recycling operations implemented.
- The contractor has a recycling or resource recovery program that reduces the total volume of refuse disposed by at least 10 percent.

Several independent recycling firms currently pick up glass and paper from Santa Clara businesses.

### Sunnyvale

Several large companies in the City of Sunnyvale, such as National Semiconductor, Koltran, Signetics, Xidex, and The Price Club currently have recycling programs in place. The City monitors these activities, but no recycling amounts are available.

A concrete/asphalt recycling operation at the Raisch Paving Company adjacent to the Sunnyvale Landfill recovers approximately 107,000 tons of material annually.

In 1986, Recovery Sciences, Inc. conducted a Commercial/industrial Recycling Feasibility Study for the City. The results indicated that changes in the refuse collection franchise could provide additional incentives for commercial/industrial recycling. The City plans to implement these changes as part of the rebidding of its refuse collection franchise.

Figure VI.6 lists the recycling programs in each city and indicates the stage of implementation for those programs.

FIGURE VI.6: Status of Recycling Programs by Jurisdiction

CITY	Dropoff	Curbside	Multi-family	Composting	Commercial/Industrial
Campbell	☆	☆			
Cupertino	☆	☆			
Gilroy	☆	☆			
Los Altos		☆			
Los Altos Hills		☆			
Los Gatos		☆			
Milpitas		☆			
Monte Sereno		☆			
Morgan Hill		★			
Mountain View	☆	☆	☆		★
Palo Alto	☆	☆	☆	☆	☆ ★
San Jose		☆	★	☆	☆
Santa Clara	☆	☆	★		★
Saratoga	☆	☆			
Sunnyvale	☆	☆	☆		★
Unincorporated	☆	☆ ★			

**Key:**

Program in place	☆
Program scheduled to begin	★
Pilot or Partial Program	☆
In planning stages	★



## CURRENT MARKETS FOR RECOVERED MATERIALS

*"Adequate markets are essential for the economic recovery of solid wastes; the lack of markets has been cited most often as the reason for low recycling rates. Markets are determined by demand which, in turn, is influenced by general economic conditions and the relative availability and cost of virgin resources."*

The above quote, from the 1975 County Solid Waste Management Plan, is as true today as it was then. Creating a supply of recovered materials will not necessarily translate into demand for them. Historically, demand for most recovered materials has fluctuated with the prices for virgin materials. Tax benefits for various virgin materials industries in the form of depletion allowances, favorable capital gains treatment, and foreign tax credits artificially inflate the difference in price between virgin and recovered materials. In addition, Federal procurement standards frequently specify virgin materials, even though equivalent secondary materials are available.

These problems are currently being addressed at both the Federal and State levels. EPA has developed guidelines for the purchase of recovered materials by Federal agencies. Senate Bill 2773, introduced in September 1988, will reauthorize the Resource Conservation and Recovery Act (RCRA). To encourage use of recovered materials, the proposed bill sets a \$7 per ton fee on virgin materials used for packaging.

Future recycling success is dependent upon finding new markets for reusable products and developing technologies that minimize processing costs. At the present time in California, export markets play a significant role, though domestic demand is still important. Both domestic and international prices and demand are constantly changing, making the market very unstable.

The status of the recovered materials market in Santa Clara County is influenced by all or most of the factors listed below.\* These factors lead to a constant state of flux in the prices for secondary materials.

- Domestic and global economy. (For example, 70 percent of certain grades of waste paper are used by the construction industry. Therefore, when housing and construction markets are depressed, paper markets are depressed.)
- Availability of materials on the world market.
- Level of demand and price competition between domestic and export markets.
- Capacity of smelters and mills which have secondary materials capabilities, as well as expansion of existing and construction of new secondary production facilities.

- Level of demand for recovered materials by mills and smelters which have capacity to utilize both primary and secondary materials.
- Direction, rate, and volatility of commodity markets.
- Variations in pricing policies between conference and nonconference export freight lines. (Conference lines are more expensive and "set" their prices in a cartel-like fashion.)
- Currency exchange rates in relation to the value of the U.S. dollar.
- Relationships between geographic supply sources and domestic and foreign market generation rates.
- International trade regulations and agreements.
- Commodity cartel arrangements.

\* Source: Commercial/Industrial Recycling Plan, City of San Jose, October 1988.

## **PROGRAM EXPANSIONS AND FUTURE PLANS**

---

Source reduction, recycling, and composting will continue to be integral parts of solid waste management in Santa Clara County. More programs are expected to be developed over the next few years in all jurisdictions in order to meet waste reduction and recycling goals.

Cities with curbside collection programs already in place are moving forward with multi-family dwelling collection programs, composting, and commercial/industrial programs. Various projects now in planning stages across the county are summarized below.

### **NEW FACILITIES**

Estimated quantities to be recovered at planned facilities are presented in Figure VI.7.

#### **The Recyclery, Browning-Ferris Industries**

The Recyclery, scheduled to open in August 1990 on a 10-acre site adjacent to the Newby Island Landfill, will be designed to recover paper, glass, plastic, metal, wood, yard waste, rubber, and cardboard. Up to 40 percent of incoming

commercial rubbish will eventually be recycled. For a more complete description, please see Chapter V, page V-37.

### **Sunnyvale Materials Recovery and Transfer Station, Waste Management, Inc.**

In order to fulfill disposal contracts with the Cities of Mountain View, Palo Alto, and Sunnyvale at its Kirby Canyon Landfill, Waste Management, Inc. will construct and operate a transfer station, which will recycle a minimum of 25 percent of the refuse delivered to the station. The facility is scheduled to open in the spring of 1991 and will be located in Sunnyvale. For a more complete description, see Chapter V, page V-39.

### **Zanker Road Resource Management**

Zanker Road Resource Management has begun planning for the construction of a 70,000 square foot recovery facility. With a design capacity of 500 tons per day, the facility will be capable of processing 70 percent of the waste brought to the Zanker site. As proposed, the facility will have three waste sorting lines: a combination mechanical and hand sorting line to process mixed waste; a line to hand-sort wood waste from high-volume wood-waste loads; and a line to process high-volume waste paper and corrugated loads. The facility will be able to process both source-separated and mixed wastes collected in curbside programs.

In 1988, Zanker purchased the Lexington Quarry as well as a portable crushing plant. Recycling of concrete and asphalt began in 1989.

FIGURE VI.7: Estimated Quantities to be Recovered at New/Expanded Facilities

Facility	Date of Operation	Throughput (tons)	Amount Tons	Recovered Percent
Recyclery	1990	312,000	124,800	40%
Sunnyvale	1991	421,200	106,100	25%
Zanker*	1990	156,000	109,200	70%

\* Note: Zanker Road is the only facility currently operating.

All estimates by facility operators.



## **CURBSIDE AND DROP-OFF: EXPANSIONS AND NEW PROGRAMS**

Of the ten cities in Santa Clara County without curbside recycling programs in 1987, all but two had operating curbside programs by early 1990. Four cities were actively investigating expansion of services to multi-family dwellings. A brief summary of new programs and future plans follows.

### **Campbell, Los Gatos, Monte Sereno and Saratoga**

The cities of Campbell, Los Gatos, Monte Sereno and Saratoga have contracted with Green Valley Disposal for the collection of newsprint, glass, PET plastic and aluminum/tin cans. Collection began in December, 1989.

### **Cupertino**

Los Altos Garbage Disposal Company, Cupertino's collection franchisee, began collecting recyclables in Cupertino in 1989. Glass, PET containers, aluminum, and tin cans are comingled by residents in 14-gallon rectangular containers supplied by the company. Newspaper, including inserts and junk mail, are bagged or bundled separately for collection, to be hand-sorted later. Waste oil is also collected.

### **Gilroy**

The Gilroy City Council worked directly with their collection franchisee, South Valley Refuse Disposal, to implement a curbside recycling program in early 1990. A major promotional campaign encouraged residents to participate. Residents place source-separated materials at curbside in containers provided by the company and collected by special recycling trucks.

### **Los Altos**

From 1982 to 1989, the City of Los Altos contracted with their collection company (Los Altos Garbage Company) to operate the City's curbside program. In July, 1989, the company began offering curbside recycling as a service, with the City providing oversight. The change allows the addition of PET containers to the list of commodities collected and the start of recycling at commercial establishments. Adjacent areas of the unincorporated county, currently serviced by Los Altos Garbage Company, will be included in the curbside recycling program.

## **Los Altos Hills**

Under the arrangement for long-term disposal capacity at Newby Island, Browning-Ferris Industries will provide curbside recycling service or allow a subsidy of \$.80 per residence to fund such a program. The City of Los Altos Hills uses the subsidy to cover the cost of curbside recycling service provided by the refuse collection franchisee. Beginning in the fall of 1989, the program is projected to collect 700-800 tons of comingled recyclables per year. Adjacent areas of the unincorporated county, currently serviced by Los Altos Garbage Company, are included in the curbside recycling program.

## **Morgan Hill**

The Morgan Hill City Council has directed staff to research curbside recycling. Staff is investigating the availability of grant money to assist in starting a program.

## **Mountain View**

The City of Mountain View plans to expand its curbside program, operated by Foothill Disposal Company, to serve condominium residents. Over the next 12 months, service will be extended to an estimated 2,000 to 4,000 units, at a cost of approximately \$10,000.

In fiscal year 1989-90, the curbside program will be extended to apartment complexes. This expansion will cost about \$30,000 and will reach approximately 10,000 units.

## **San Jose**

The City of San Jose Curbside Recycling Program is planning to add waste oil to the list of commodities collected. Program staff is drafting a plan for residential curbside recycling at multi-unit dwellings that have dumpster garbage collection. Curbside recycling service will be extended to about 50,000 dwelling units.

## **Santa Clara**

A residential curbside recycling program began in January, 1990. Newsprint, glass, aluminum/tin cans, PET containers and waste oil are collected, with an estimated total of 1375 tons of material to be collected annually. Two five-gallon buckets are provided by the contractor for bottles and cans; newspapers are bundled or bagged. The cost of the program, estimated to be \$0.75 per household per month, will be wholly subsidized by a credit from the contractor, International Disposal Corp. (a BFI subsidiary).

## Sunnyvale

Peninsula Sanitary Services is conducting a one-year pilot recycling program at five large apartment complexes in the City of Sunnyvale.

Figure VI.8 presents the estimated quantities to be recovered by cities implementing new curbside programs.

FIGURE VI.8: Estimated Quantities to be Recovered by New Curbside Programs

City	Date of Operation	Households Served	Amount Recovered (tons)
Campbell <sup>1</sup>	1990	8,500	1,284
Cupertino <sup>2</sup>	1989	17,100	3,864
Gilroy <sup>3</sup>	1990	9,500	
Los Gatos <sup>1</sup>	1990	8,300	1,248
Los Altos Hills <sup>2</sup>	1989	2,900	655
Monte Sereno <sup>1</sup>	1990	1,300	192
Santa Clara <sup>4</sup>	1990	19,600	1,375
Saratoga <sup>1</sup>	1990	8,600	1,296

<sup>1</sup>Source: West Valley Cities' RFP

<sup>2</sup>Estimate by contractor based on actual figures from Los Altos.

<sup>3</sup>Contractor unable to estimate based on other cities due to demographic differences.

<sup>4</sup>Source: City of Santa Clara

## COMMERCIAL/INDUSTRIAL EXPANSIONS

### Mountain View

The City of Mountain View is in the process of developing a Commercial/Industrial Recycling Plan.

### Palo Alto

A corrugated cardboard collection program for the commercial/industrial sector is presently under consideration. The size and cost of the program have not yet been determined.



## **San Jose**

The City of San Jose's Commercial/Industrial Recycling Program should be in operation by mid-1990. A small pilot program has already started, with pickup of materials by the San Jose Conservation Corps. White office paper, computer paper, glass, aluminum, and corrugated cardboard will be collected from downtown businesses. In May, the City's contractor will begin collecting corrugated paper from small businesses.

## **Stanford**

Peninsula Sanitary Service plans to expand collection of source-separated materials in student living areas.

## **Sunnyvale**

The City of Sunnyvale is currently rebidding its refuse collection franchise, and may include a requirement that the collection company provide waste audits and corrugated cardboard collection as part of its services. As part of the rebidding process, the City is also restructuring its franchise system to interface with the Sunnyvale Materials Recovery and Transfer Station and to provide greater incentives for commercial/industrial recycling.

## **FUTURE COMPOSTING PLANS**

As yard waste is the second largest component of a municipal waste stream (after mixed paper), and comprises between 25 percent and 30 percent of a residential waste stream, composting becomes an attractive alternative for waste stream reduction. Two cities are planning to implement composting programs.

## **Palo Alto**

The City of Palo Alto will begin curbside yard waste collection in May, 1990. All 15,848 single-family residences in Palo Alto will be served. Debris will be collected in reusable containers, and will be composted and saved for use as final cover for the landfill.

## **San Jose**

In August of 1988, the City of San Jose Office of Environmental Management published a Yard Waste and Composting Implementation Plan, which was approved by the City Council in December 1988. A pilot program was begun in March 1989, and expanded in September, 1989. Unbundled yard wastes are

collected from around 15,000 homes. The material is then processed into biomass fuel and compost at Zanker Road Resource Management.

## Stanford

Peninsula Sanitary Service plans to implement a yard waste collection program at Stanford in the near future.

## FUTURE MARKETS FOR RECOVERED MATERIALS

The factors listed in the discussion of current markets, above, will continue to influence secondary materials markets, unless steps are taken to strengthen and expand existing markets. The 1989 Revision contains policies and implementation measures designed to help stabilize and expand the local secondary materials market and make it less sensitive to the factors that presently influence it.

One way to help stabilize the secondary materials market is to assure demand for products made from recovered materials. Local governments can increase demand through implementation of procurement policies that require the purchase of materials that contain recycled materials. The Solid Waste Committee, Technical Advisory Committee, and the County Solid Waste Program will develop a model procurement policy for consideration by the County, cities, and other public and private entities.

Another way to stabilize the secondary materials market is to create a steady local demand for recovered material. This could be achieved by inducing more manufacturing plants to use recovered materials as a feedstock. The 1989 Plan Revision workprogram will explore the feasibility of encouraging the development of local industries that would use recovered materials as a feedstock.

Research will be done to determine what type of industries can reasonably be encouraged to locate in Santa Clara County. The expansion potential of existing secondary materials manufacturers will also be explored. The formation of a Task Force to encourage likely prospects will be considered. This group would be composed of representatives from economic development staffs, Chambers of Commerce, the Santa Clara County Manufacturing Group, and private developers.

Lastly, the 1989 Revision encourages local endorsement of legislation that will grant tax breaks and other incentives to users of recovered materials, making such goods more competitive with goods made from virgin materials.

In developing a Commercial/Industrial Recycling Plan, the City of San Jose studied the secondary materials marketplace and concluded that there are sufficient markets for the volume of material that could be expected to be

generated by their commercial/industrial recovery program (San Jose Commercial/Industrial Recycling Implementation Plan, page C-4). However, when recovery efforts in the North County commercial/industrial waste shed accelerate, a heavy increase in the volume of material could adversely affect this market.

As more communities initiate curbside collection programs, and more citizens participate in programs, local markets for newsprint, aluminum and glass could become saturated. The newsprint market is already feeling the effects of more available material than the market can use. This makes development of local markets even more vital.

## **LANDFILL GAS RECOVERY**

---

Landfill gas recovery, a means of controlling and utilizing the energy content of landfilled refuse, has been considered or tried at seven operating landfills and at one site which is no longer operating. Two sites currently fall under the State Air Resources Board exemption for sites with less than 1,000,000 tons in place. Following is the status of methane recovery efforts throughout the county. See Figure VI.9 for a summary of gas recovery systems by landfill.

### **Guadalupe Rubbish Disposal Co.**

Guadalupe Mines Disposal Site was the first in Santa Clara County to have a full-scale electrical generation facility on site, powered by recovered landfill gas. Operated by Laidlaw-Genstar, the system currently produces 2,500 kilowatts of power, or enough to light 4,000 homes. The power is sold to PG&E. An internal combustion engine and a small gas processing plant from the Singleton Road Landfill in San Jose was recently moved to Guadalupe, joining three other engines currently operating at Guadalupe. This increased the electrical output by 1,000 kilowatts.

### **Mountain View Landfill**

The City of Mountain View initiated the first landfill gas recovery system in the county in the late 1970s, recovering methane, which is scrubbed and injected into PG&E natural gas lines and piped to customers (This area is currently under the back nine holes of the Shoreline Park golf course). Permits allow processing of 500,000 cubic feet per day; system currently produces about 330,000 cubic feet of treated gas per day.

In 1986, recovery operations were expanded to include electrical generating capabilities. A Laidlaw Gas Recovery System was installed in the northeast portion of the inactive Ferrari landfill. The system has two engines, and currently produces 3,000 kilowatts of power, or enough to supply 7,000 homes. A backup flare is used when the system is inoperable.



Two other collection systems are in place, one at the Amphitheatre and another 150-acre system. At both systems gases are flared. In 1989, a fifth system will begin to collect and flare gases from under the front nine holes of the golf course.

FIGURE VI.9: Summary of Landfill Gas Recovery Systems

Landfill	No. of engines	Flares Output	Sold to	
Guadalupe	4	no	2500 kw	PG & E
Kirby Canyon*	0	no	n/a	n/a
Mountain View	2	backup	3,000 kw	PG & E
Mountain View	gas pipeline injection	n/a	330,000 cu ft	PG & E
Newby Island	4	no	2000 kw	PG & E
Pacheco Pass	0	no	n/a	n/a
Palo Alto**	0	yes	n/a	n/a
Santa Clara/All Purpose	1	backup	1100 kw	PG & E
Singleton Road	0	yes	n/a	n/a
Sunnyvale	0	yes	n/a	n/a
Zanker Road*	0	no	n/a	n/a

\* Site has less than 1,000,000 tons in place; recovery system not required.

\*\* Gas recovery system scheduled to begin operation in August 1989.

### Newby Island Landfill

A Genstar-Laidlaw Recovery System has been on-line at Newby Island since 1984. Four engines produce 2,000 kilowatts, which is sold to PG&E. At present, there is no backup flare.

### Palo Alto

A gas recovery system is currently in place at the Palo Alto Landfill, and the gas is being flared temporarily. There is potential for energy recovery, and a permanent electrical generation system should be operating by August of 1989. This system should produce about 1200 kilowatts.

## All Purpose/City of Santa Clara

Pacific Energy Systems has operated an electrical generation facility at the All Purpose Landfill since October, 1986. One engine produces 1100 kilowatts of power, which is sold to PG&E. The system has standby flaring capability.

## Other Sites

Feasibility studies were undertaken at Pacheco Pass and Sunnyvale Landfills; gas recovery systems were not recommended at either site. Sunnyvale currently flares what gas is produced, as required by State law. Kirby Canyon and Zanker Road Resource Management have less than 1,000,000 tons of waste in place and therefore are not required to have gas recovery systems.

## Singleton Road/City of San Jose

A landfill gas recovery system was installed at the Singleton Road facility in 1986 and operated for two years. Not enough gases were produced to run the equipment effectively, and arrangements have been made to move it to the Guadalupe Site. The system has been replaced at Singleton Road with a flare.

## WASTE-TO-ENERGY

---

Waste-to-Energy remains the least-developed type of resource recovery in Santa Clara County. The most important reason is a lack of markets for energy, due to low oil prices and the removal of Standard Offer Number 4 by the California Public Utilities Commission. Other reasons contributing to a lack of interest in waste-to-energy include high initial capital costs, difficulties in siting, and environmental issues.

Several feasibility studies have been undertaken in recent years, but no facilities have been sited. See Figure VI.10 for a list of local studies from 1968 to the present.

The most recent study was undertaken by EMCON Associates for the City of Sunnyvale. This \$120,000 study examined siting a waste-to-energy facility that would burn refuse from Sunnyvale, Santa Clara, and Palo Alto. The study concluded that long-term landfill is much more economical than waste-to-energy for the reasons listed above.

The North County cities' long-term disposal contracts with Browning-Ferris and Waste Management include escape clauses to allow them to pursue waste-to-energy if and when it becomes a viable waste management option.

## **Lockheed Solid Waste Conversion Facility**

The only waste-to-energy facility to operate in the county was the Lockheed Solid Waste Conversion Facility. The system was designed to burn twenty-five tons per day of combined plant refuse and security classified material and operated twenty-four hours a day, seven days a week. The heat from combustion of the waste was used to produce steam, which in turn was used in a central heating and cooling system for three large buildings on site.

Operations began in August 1981 and continued until June of 1985, when plant refuse burning was discontinued for economic reasons. The facility is still used for the destruction of security classified wastes, operating sixty hours a week and burning approximately 115 tons per month.

## **WASTE-TO-ENERGY: THE FUTURE**

At the present time, there is little interest in developing waste-to-energy as a waste management option in Santa Clara County, largely because of its lack of economic viability. However, an increase in the cost of energy, technological advances that would further reduce the impact of waste burning on the environment, and ever-diminishing landfill capacity could make waste-to-energy a more attractive option in the long-term. For this reason, the jurisdictions in the county are attempting to structure current and future collection, disposal, and recycling agreements to allow its possible future development.



FIGURE VI.10: Waste To Energy Studies in Santa Clara County  
1968 To The Present

TITLE OF STUDY	DONE FOR:	DONE BY:	DATE:
Systems Analysis for Incineration	San Jose County	FMC	1968
Garbage Power: WTE in S.C. County	County Planning	Engineering 235, Stanford Univ.	1975
Final Report /Solid Waste Resource Recovery	Santa Clara San Jose	Bechtel Inc.	1978
Stanford Res. Recovery Study - Phase I	Stanford Univ.	PBQ&D Inc. et al.	1978
Conceptual Res. Recovery Study - Phase I:	JPA <sup>1</sup>	Brown, Caldwell, et. al.	1979
Conceptual Res. Recovery Study - Site Design	JPA <sup>1</sup>	Brown, Caldwell, et al	1979
NASA Energy Utilization Studies, Moffett Field	NASA, D.C.	Weston	1981
Feasibility Study Cogeneration/VMC	County	Brown Vence et al.	1982
Solid Waste Mgmt. Alternatives for S.J.	San Jose	SRI International	1982
SWMA <sup>2</sup> Executive Summary Project Feasibility Report	SWMA <sup>2</sup>	Impell Corp. et al.	1983
Resource Recovery, Technical Assistance Program	San Jose	U.S. Conference of Mayors	1983
Feasibility Study for Constructing a Waste to Energy Facility	Sunnyvale	EMCON ASSOCIATES & HDR Tech. Serv.	1987
Waste to Energy Feasibility Report	Santa Clara	California Energy Commission	1988

<sup>1</sup>JPA = Joint Powers Authority, North County

<sup>2</sup>SWMA = Solid Waste Management Authority, North County



# CHAPTER VII

## OTHER WASTE





## OVERVIEW

---

Preceding chapters of this plan have discussed the generation and disposal of most types of solid waste generated in Santa Clara County. This chapter focuses on those wastes which, due to characteristics of the waste, require special handling, treatment, and/or disposal methods.

These "other wastes" include wastes determined to be hazardous, such as household hazardous wastes, asbestos, and infectious/medical wastes; wastes designated as requiring more stringent management than solid wastes; and certain types of special solid wastes, such as abandoned vehicles, tires, bulky items, and liquid and semisolid wastes.

## HAZARDOUS WASTE

---

Hazardous waste is defined as wastes which consist of, or contain, toxic substances and/or other substances which could significantly impair the quality of the usable waters of the State (California Code of Regulations, Title 22, Section 66300). An expanded definition is included in Chapter III.

Hazardous wastes include such wastes as saline fluids from water or waste treatment processes; brine from industrial processes; fluids such as cleaning fluids; petroleum fractions, acids, alkalies, phenols, and spent washing fluids; substances from which toxic materials can leach such as ashes and chemical mixtures; pesticides or chemical fertilizers; and discarded chemical containers. Household products containing hazardous substances, friable asbestos, and untreated infectious wastes are also defined as hazardous wastes.

Untreated hazardous wastes must be disposed of in a Class I waste management facility. Since there are no Class I facilities in Santa Clara County, untreated hazardous wastes are shipped out-of-county for disposal.

In general, hazardous waste management is not addressed in this Plan Revision. Santa Clara County has prepared a separate plan, the Santa Clara County Hazardous Waste Management Plan (April 1989), to provide for comprehensive planning for hazardous waste management in the county, in compliance with requirements of State law. (AB 2948, Tanner Bill, 1986). For specific information, refer to that plan.

Although, by definition, solid waste excludes wastes defined as hazardous, the County Solid Waste Management Plan must discuss any problems with hazardous waste identified at solid waste facilities. Hazardous wastes which may impact solid waste management are discussed below.

## HOUSEHOLD HAZARDOUS WASTE

Household hazardous wastes are defined as *products purchased by the general public for use in and around the home which contain hazardous substances.*

Common hazardous household products include pesticides, insecticides, fertilizer, car waxes/polishes, used motor oil, car batteries, gasoline, antifreeze, flea powders, pool chemicals, nail polish and polish remover, hair sprays, dyes, medicines, paint, ammunition, bleach, furniture polish, and household cleaners containing chemicals such as acids and solvents.

Although Federal law exempts household products from classification as hazardous materials, California law does not. Household hazardous wastes require special treatment because improper use and/or disposal of products or containers may damage the environment and/or the public.

A recent survey of all public and private landfills and transfer stations in the county was conducted to determine if the facilities have identified hazardous substances in incoming waste loads. Survey results indicate that substances typically classified as "household hazardous waste" are periodically found. See Figure VII.1 for information on survey responses from landfill operators.

Household hazardous waste problems, existing local programs, and current activities are discussed below.

### Problems with Household Hazardous Waste

The quantity of household hazardous waste is small in comparison with the total amount of solid waste generated by households. However, a general lack of public knowledge and limited recycling and disposal options for household hazardous waste can create disposal problems. While recent legislation and publicity has increased the public's awareness of hazards associated with improper handling of hazardous materials, many individuals do not fully understand the potential impacts of hazardous household substances. Conversely, those aware of the dangers are often frustrated by the lack of convenient and inexpensive disposal options.

Frustration and lack of knowledge often lead to improper and/or illegal disposal of household hazardous waste. On a daily basis, products containing hazardous substances are poured into sewer drains, discarded with household refuse, dumped onto the ground, or simply stored for extended periods of time. All of these methods can pose significant threats to the environment and public health.

Hazardous substances dumped into sewer systems can hinder or destroy the biological systems at sewage treatment plants. Hazardous wastes "hidden" in household refuse may harm refuse collection crews, or remain undetected and be buried in the landfill with resultant environmental impacts. Extended storage of hazardous materials can endanger residents.



FIGURE VII.1 - Results of Household Hazardous Wastes Survey\*

**SOLID WASTE FACILITY RESPONSES**

- 1) In the past year, has your facility discovered any wastes containing hazardous substances in your incoming loads, either public or franchised?

5 of 8 YES

3 of 8 NO

If YES, what type of hazardous substances have been found, how much, and how often? (estimates ok)

Industrial drain cleaner (once), hospital waste (once - alleviated at the source), used motor oil, empty chemical drums, paints, paint cans, paint solvents and thinners, chemicals, gas cylinders, car batteries, acetone, toner, and household pesticides.

Have these hazardous substances been found as part of your periodic load-check program?

3 of 8 YES

5 of 8 NO

- 2) Have you ever experienced any problems with public dumping of hazardous substances on or near your site? (please explain)

2 of 8 responded YES - it was suggested that the dumping problem may come from customers who attempt to dispose of hazardous substances at the landfill, but are turned away at the facility's gate.

\*Conducted by the Santa Clara County Solid Waste Program, October 1988. Twelve surveys were sent out to the owners/operators of active landfills and transfer stations located in Santa Clara County. Eight surveys were returned. All facilities responding indicated that all hazardous materials found in incoming loads were properly disposed of.

All solid waste facilities in the county have developed procedures for handling hazardous substances discovered in incoming loads, often at great expense to the collector and/or the disposer. However, even with careful screening at a facility entrance, household hazardous substances may enter the facility without the operator's knowledge.

### **Household Hazardous Waste Programs**

Several options exist for the proper collection and disposal of household hazardous waste. These include

- Scheduled one-day collection event(s) within a community;
- Permanent or regularly scheduled periodic drop-off centers established at various locations for use by all county residents;
- Curbside pick-up of limited amounts and types of hazardous substances, similar to curbside recycling;
- Incineration of certain types of household hazardous waste (however, if ash is hazardous, it must be handled as a hazardous waste); and
- Recycling or reuse of recyclable substances, such as used oil or paint.

At present, Santa Clara County does not have a countywide program for household hazardous waste collection and disposal. However, local jurisdictions have implemented programs to address the problem, including sponsorship of household hazardous waste collection days, development of curbside programs for collection of residential waste oil, and distribution of public education materials.

### **Household Hazardous Waste Collection Events**

Household hazardous waste collection days, or "round-ups," are one way to effectively collect and dispose of these wastes. During an event, residents of the sponsoring jurisdiction can bring unwanted hazardous materials to an approved drop-off location, at a specified date and time, where the materials will be properly packaged and disposed by an authorized waste hauler.

The first collection events in the nation were conducted in the states of Kentucky, Massachusetts, and Washington in 1981-1982. The first events held in California were sponsored in 1982 by the City of Sacramento and in 1983 by the City of Palo Alto. In 1986, over 40 events were held in the San Francisco Bay Area.

All jurisdictions in Santa Clara County have sponsored, or are in the process of sponsoring, collection events. Many have pooled resources to sponsor joint collection days. In 1989, over 12 collection events were held in the county, and an increased number are projected for 1990.

The number of events sponsored by a jurisdiction varies between one and four annually, depending on community need and funding capabilities. Each collection event will last one or two days and participation is free to community residents. Nonresidents can sometimes utilize the service for a fee. Participation in collection programs varies, depending on such factors as public awareness, community need, time of year, weather, and site location.

According to ABAG, participation rates in the Bay Area range from 0.6% to over 2.0% of eligible households, with an average of about 0.8%. The City of Palo Alto, which has conducted events twice yearly for the past four years, has experienced a gradual increase in participation from 0.65% to over 2.0% in 1987-1988, with repeat participation reaching 23% in 1986.

Paint and paint supplies are the primary substances collected at round-up events within the Bay Area. Jurisdictions without waste oil collection programs usually collect large amounts of used oil. The amount of hazardous materials collected in the Bay Area per household averages 0.4 drums (ABAG). In Palo Alto, the amount of waste collected increased from 30 drums per event in 1983 to over 300 drums in 1986, with an average of about 220 drums per event.

Most communities limit the amount and type of hazardous substances that will be accepted. Wastes which contain dioxin or polychlorinated biphenyls (PCBs), or which are radioactive, biologically active, or explosive are generally not accepted.

## **Waste Oil Collection and Recycling**

Waste oil from cars and other machinery is classified as a hazardous waste, and waste oil generated by residents is generally considered a household hazardous waste.

In Santa Clara County, the cities of Sunnyvale, Santa Clara, Palo Alto, Mountain View, Milpitas, Los Altos, and Cupertino, and County District #1 have programs for the collection of residential waste oil. Oil generated by residents is collected at the curb by the residential waste hauler. Residents are usually limited to five gallons per pickup. In some cities, waste oil is collected, along with other recyclable materials, as a part of the city curbside recycling program.

Some automobile service stations will accept waste oil from customers and transfer it to recycling centers, usually for a small fee. The San Martin Transfer Station in south county will accept waste oil generated by



homeowners (up to 5 gallons per container, 20 gallons per shipment). Foothill Disposal Company in Mountain View accepts, at its yard, waste oil generated by residences in Mountain View, subject to the legal limitations on container size and shipment size. Oil collected through city curbside or drop-off programs is typically sold to waste oil recyclers located out-of-county.

As a result of the 1978 Used Oil Recycling Act and the 1986 revision to that Act (SB 86-Presley), CWMB and DHS administer an oil recycling program. In 1987, the program reported the collection and recycling of approximately 57 million gallons of oil. This figure represents roughly 41% of used oil available for recycling statewide.

Under the program, the DHS is required to register all oil haulers, transfer stations, and recyclers located and/or operating in California. As of November 1988, three oil haulers and one transfer station were registered in Santa Clara County. No oil recyclers are registered in the county, but facilities located in neighboring counties help to maintain a local market for used oil.

Retail stores which sell over 500 gallons of oil per year are required to post signs indicating the location of the nearest used oil collection center(s). The CWMB maintains and annually updates a list of collection centers in the State. During 1988, 53 collection centers were registered in Santa Clara County.

In 1986, the Management of Used Oil Act further encouraged the recycling of used oil by requiring collection and recycling of used oil, to the maximum extent possible, by means which are economically feasible and environmentally sound.

### Countywide Coordination

During the development of the County Hazardous Waste Management Plan, the Santa Clara County Tanner (hazardous waste) Advisory Committee identified the need for countywide coordination of two household hazardous waste issues: the need to educate the public about household hazardous wastes; and the need to coordinate household hazardous waste collection efforts. To assist in coordination, a household hazardous waste working group was organized in 1988. The group is composed of household hazardous waste program coordinators from cities; County hazardous, solid waste, and environmental health staff; private and solid waste contractors; and community advisory members.

The goals of the working group include

- Keeping household hazardous waste out of landfills, sanitary and storm sewers, and waterways;

- Reducing potential adverse effects of household hazardous waste on public health and safety;
- Preventing harmful exposures in the home and environment through coordinated public education; and
- Providing services to all residents in the county.

Tasks undertaken by the working group include

- Publication of a list of local city and County contacts for information on household hazardous waste programs (see Figure VII.2).
- Development of a guidebook to assist local agencies to respond to public inquiries. The book will identify proper handling and disposal practices for various household products. It will also list agencies to contact for additional information.
- Creation of a household hazardous waste reference "wheel" to help the public identify and understand household hazardous substances and provide information on nonhazardous alternatives.
- Surveying local jurisdictions to determine their level of effort in management of household hazardous wastes in the county.

Currently, household hazardous waste are managed by each jurisdiction. These efforts include scheduled one-day collection events and distribution of public education materials.

While periodic one-day collection events are held in a number of jurisdictions, the survey revealed that unmet needs in the county still exist. These include

- Access to household hazardous waste collection on an "immediate need" basis (residents who are moving or otherwise need to dispose of materials rapidly);
- Access to permanent collection centers; and
- Development of public education materials and programs that are consistent for all jurisdictions in the county.

To address these unmet needs, the working group determined the need for an ongoing, countywide program. The "Proposal for Development of a Countywide Household Hazardous Materials Management Program" was developed to seek local support for the concept of a countywide program and the planning effort needed to develop such a program.

FIGURE VII.2 - Household Hazardous Waste Programs Contact List \*

HOUSEHOLD HAZARDOUS MATERIALS PROGRAMS SANTA CLARA COUNTY - 1/1/90	
<u>CITY CONTACTS</u>	
For specific information on individual city programs, contact the following:	
<b>CITY OF CAMPBELL</b> Barbara Lee (408) 866-2103	<b>CITY OF MONTE SERENO</b> Rosemary Pierce (408) 354-7635
<b>CITY OF CUPERTINO</b> Steve Sano (408) 252-4505	<b>CITY OF MOUNTAIN VIEW</b> Gary Leinweber (415) 966-6378
<b>CITY OF GILROY</b> David Olds (408) 842-5656	<b>CITY OF PALO ALTO</b> Janet Foreman (415) 329-2495
<b>CITY OF LOS ALTOS</b> Daphne Siegert (415) 948-1491	<b>CITY OF SAN JOSE</b> Environmental Management (408) 277-4509
<b>TOWN OF LOS ALTOS HILLS</b> Bill Ekern (514) 941-7222	<b>CITY OF SANTA CLARA</b> Bill Alexander (408) 984-3080
<b>TOWN OF LOS GATOS</b> Regina Falkner (408) 354-6820	<b>CITY OF SARATOGA</b> Todd Argow (408) 867-3438
<b>CITY OF MILPITAS</b> Fire Department (408) 942-2386	<b>CITY OF SUNNYVALE</b> Richard Gurney (408) 730-7262
<b>CITY OF MORGAN HILL</b> Sharon Kohlmannslehner (408) 779-7231	
<u>COUNTY CONTACTS</u>	
For information on the countywide household hazardous materials management program, or programs in the unincorporated County area, please contact:	
<b>SANTA CLARA COUNTY</b> Office of Toxics and Solid Waste Management Alicia A. Flynn, Environmental Analyst (408) 299-2424	
For technical assistance, information on programs in the unincorporated County area, or to report an emergency, please contact:	
<b>SANTA CLARA COUNTY</b> Environmental Health Department, Toxics Control Division Sharon Dowell, Registered Environmental Health Specialist (408) 299-6930	

\* Source - Santa Clara County Tanner Program



Upon recommendation from the Tanner Advisory Committee, the County approved funding for the planning effort in October 1989. The planning effort will address such issues as the establishment of ongoing collection centers; coordination of public education; coordination of legislative lobbying; identification of funding options; and the need for ongoing program coordination. Recommendations for a countywide program are anticipated by mid-1990.

## ASBESTOS

Prior to 1970, asbestos was widely used in many products. In the early 1970s, medical researchers linked the exposure of asbestos workers and their families to airborne asbestos with their susceptibility to various types of cancerous and noncancerous respiratory diseases. The Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) is also concerned about the potential health hazards associated with human exposure to airborne asbestos fiber. As a result, friable asbestos is now considered a hazardous substance and requires special handling and treatment for disposal.

Friable asbestos is defined by Bay Area Air Quality Management District regulations as "any material that contains more than one percent asbestos by weight and that can be crumbled, pulverized, or reduced to powder, when dry, by hand pressure."

Because of the recognized health risk, manufacture and use of asbestos products have rapidly decreased in recent years. However, much of the material is still present in residential, commercial, and industrial buildings and must be removed, encapsulated, and properly disposed.

According to the California Department of Health Service's Hazardous Materials Report Manifest Information System, 2866.8 tons of friable asbestos-containing waste was generated in Santa Clara County during 1987. Of that amount, 7.7 tons was handled by three local companies (Solvent Services, HazControl, and IBM) who shipped the waste to other disposal facilities located out of the county. The remaining wastes were shipped directly to out-of-county facilities. None of the asbestos-containing waste was disposed of in this county. See Figure VII.3 for a list of California counties which received asbestos-containing wastes from Santa Clara County generators.

According to state regulations, asbestos may be disposed in Class III landfills provided wastes are properly contained and appropriate disposal precautions are taken at the landfill site. Within Santa Clara County, three landfills will accept non-friable asbestos-containing wastes for disposal: the City of Santa Clara All Purpose Landfill, the Guadalupe Landfill, and the Zanker Road Landfill. The All Purpose Landfill accepts only asbestos-containing wastes removed from buildings owned by the City of Santa Clara.

FIGURE VII.3 - Disposal of Asbestos Wastes Generated in  
Santa Clara County During 1987 \*

COUNTY RECEIVING ASBESTOS WASTE	AMOUNT SHIPPED
ALAMEDA COUNTY	1.68 tons
CONTRA COSTA COUNTY	416.01 tons
EL DORADO COUNTY	.45 tons
KINGS COUNTY	127.28 tons
SAN JOAQUIN COUNTY	58.98 tons
SANTA BARBARA COUNTY	109.51 tons
SHASTA COUNTY	1934.13 tons
UNKNOWN	218.80 tons
<b>TOTAL</b>	<b>2866.84 tons</b>

\* Source - California Department of Health Services

## INFECTIOUS/MEDICAL WASTE

Infectious medical wastes are waste materials which could potentially transmit disease. According to current definition, an etiologic agent (an organism which causes or contributes to human disease) must be present in order for the material in question to be considered infectious. Hospitals and medical facilities generate a variety of infectious materials. Veterinary facilities and animal shelters can also generate infectious wastes.

Infectious materials include

Wastes from biological laboratories (including cultures) which pose a substantial threat to health; pathological specimens; human dialysis waste; syringes, needles, and blades (sharps); human anatomic materials; and carcasses of animals infected with pathogens.

Other medical waste may or may not be infectious but are generally handled as infectious waste. These wastes may include

- Surgical specimens, equipment, utensils, or any other material determined likely to transmit pathogens, and
- Patient care items, such as personal or food service items, or linens from contaminated areas.

Infectious wastes, as defined in Section 25117.5 of the California Health and Safety Code, are classified as a category of hazardous wastes, and are regulated by the State Department of Health Services through the local Health Department. Authority for the regulation and control of infectious wastes is provided in the State Hazardous Waste Control Law. Regulations are contained in the California Code of Regulations, Title 22, Division 4, Chapter 30, Article 13, the intent of which is to limit the spread of infectious disease through control of the management of infectious wastes. In addition to regulations in Title 22, the disposal of syringes and hypodermic needles is also regulated by Section 4248 of the California Business and Professions Code.

Medical facilities and hospitals generate other hazardous wastes, such as radiological wastes and antineoplastic agents, which must be handled separately from infectious wastes. These wastes are also regulated under State law (CCR, Title 22, Articles 17 and 6, respectively), and are not discussed in this Plan Revision.

### Handling of Infectious Waste

Unless handled properly, infectious waste can become a source of infection to hospital staff, and can cause occupational hazards to solid waste collectors and



disposers. Infectious waste may also, under certain circumstances, prove hazardous to the general public.

According to the State Hazardous Waste Control Law, any producer of more than 100 kilograms (220 pounds) of infectious waste per month must properly contain or treat infectious waste at the point of origin. Any licensed health care facility must follow the State Hazardous Waste Control Law, regardless of the amount of infectious waste generated.

Infectious waste contained on site but not frozen must be removed by a registered hazardous waste hauler within 96 hours, unless an extension of storage time has been granted by the local health officer. Infectious waste stored at or below 32 degrees must be removed within 90 days.

Infectious materials must be transported in leakproof, fully-enclosed containers, and/or bags which are red, and clearly marked with the words "Infectious Waste" or "Biohazard" in both English and Spanish.

Once collected, either on site or by a registered hauler, there are several ways to dispose of infectious wastes. Liquid or semi-liquid wastes may be discharged into the sanitary sewer. However, permission for disposal of untreated liquid infectious wastes depends on the local sewer collection and treatment agencies. Other materials may be

- Incinerated in a controlled-air, multi-chambered incinerator;
- Sterilized in a steam sterilizer (autoclave);
- Sterilized by other techniques approved by the Department of Health Services; or
- Landfilled in a Class III landfill under special waste handling conditions.

Users of steam sterilizers must develop and adhere to written operating procedures approved by the local enforcing agency. Users must maintain records of all procedures on a yearly basis, in order to verify the performance of the equipment.

Sanitary landfills may accept untreated infectious waste for disposal if special handling and disposal criteria are followed and approval from the local health officer is obtained. Wastes must be discharged in an area separate from daily disposal operations, and immediately covered with a minimum of six inches of compacted soil or non-hazardous solid waste. The landfill operator must also adhere to an operation plan, approved by DHS or the local Health Officer, for the handling and disposal of infectious waste.

Treated infectious waste that has been rendered nonhazardous may be disposed of as solid waste at Class III landfills. However, many landfills limit the amount and type of treated infectious waste accepted.

### **Current Methods in Santa Clara County**

No landfills in Santa Clara County are permitted to accept untreated infectious waste. All hospitals and licensed care facilities in Santa Clara County have incinerators, autoclaves, or contract with haulers to meet requirements for disposal of infectious wastes. Figure VII.4 lists waste generators, quantities of wastes generated, and disposal information.

Methods of identifying and handling infectious materials appear to be adequate for generators of greater than 220 lb/month. No significant problems with illegal disposal of infectious materials onto public or private lands, or at the municipal landfills located in the county have been identified.

### **Small Quantity Generators**

The DHS and the County Health Department are currently evaluating the adequacy of the regulation of disposal of infectious wastes produced by small quantity generators (220 lb/month or less).

The County Health Department has formed an Ad Hoc Infectious Waste Committee (consisting of members of the health care community, the public, and the solid waste industry) to address limitations of State regulations (CCR, Title 22, Chapter 13, Sections 66835-66865). Under current regulations, generators of 220 lb/month or less of infectious waste may dispose of certain waste materials into the nonhazardous waste stream. However, solid waste collectors and landfill operators *are* subject to the same monthly limits applied to infectious waste generators. Therefore, accumulation of small quantities of legally discarded infectious waste could place these operators in violation of State law.

This inconsistency may be resolved by pending State legislation, as well as new federal regulations not currently applicable in California. These new requirements would impose controls on disposal of all infectious waste, regardless of the amount generated. In the event that the necessary legislation is not enacted, alternatives are being explored by the Ad Hoc Infectious Waste Committee. The committee is currently redrafting the County Infectious Waste Policy in an effort to address issues of small quantity generators in this county.

FIGURE VII.4 - Generators of Infectious Wastes\*

GENERATOR	QUANTITY (lbs/month)	DISPOSAL METHOD
<b>General Acute Care Hospitals:</b>		
AGNEWS STATE HOSPITAL	600 lbs	BFI Medical**
ALEXIAN BROTHERS HOSPITAL	105,000 lbs (all waste)	On-site incinerator
CHILDRENS HOSPITAL AT STANFORD	16,200 lbs	Stanford Environmental Safety Facility***
LOS GATOS/SARATOGA COMMUNITY HOSPITAL	12,250 lbs	BFI Medical**
EL CAMINO HOSPITAL	16,800 lbs	On-site retort
GOOD SAMARITAN HOSPITAL	44,600 lbs	BFI Medical**
KAISER, SANTA CLARA	115,000 lbs Sharps (handled separately)	Autoclave/compactor Integrated Environmental Systems***
MISSION OAKS HOSPITAL	3,900 lbs	BFI Medical**
O'CONNER HOSPITAL	60,000 lbs	Integrated Environmental Systems***
SAN JOSE HOSPITAL	25,000 lbs	BFI Medical**
SANTA CLARA VALLEY MEDICAL CENTER	110,000 lbs	On-site incinerator
SANTA TERESA COMMUNITY HOSPITAL	80,000 lbs	Autoclave/compactor
STANFORD HOSPITAL	22,000 lbs	Stanford Environmental Safety Facility***
WHEELER (SOUTH VALLEY HOSPITAL)	1,100 lbs	On-site incinerator

- \* Source - Santa Clara County Health Department  
 \*\* Steam sterilization and landfilled out-of-county (Fresno)  
 \*\*\* Incineration



FIGURE VII.4 - Generators of Infectious Wastes, continued\*

GENERATOR	QUANTITY (lbs/month)	DISPOSAL METHOD
<b>Skilled Nursing Facilities:</b>		
BETHANY CONVALESCENT	270 lbs	BFI Medical**
BEVERLY MANOR CONVALESCENT	360 lbs	BFI Medical**
CAMDEN CONVALESCENT	< 50 lbs	BFI Medical**
CRESTWOOD MANOR	< 50 lbs	Integrated Environmental Systems***
DRIFTWOOD CONVALESCENT	120 lbs	BFI Medical**
EAST VALLEY PAVILION	< 50 lbs	Valley Medical Center incinerator
THE HERMAN SANITARIUM	<< 50 lbs	Alexian Brothers incinerator
HILLVIEW CONVALESCENT	< 50 lbs (estimate)	BFI Medical**
LOS GATOS CONVALESCENT	400 lbs	BFI Medical**
MISSION SKILLED NURSING	220 lbs	BFI Medical**
MOUNT PLEASANT CONVALESCENT	70 lbs	BFI Medical**
ODD FELLOWS HOME OF CALIFORNIA	< 50 lbs (estimate)	BFI Medical**
PARK VIEW NURSING CENTER	270 lbs	Alexian Brothers incinerator
ROSSCARE CONVALESCENT	<< 50 lbs (sharps)	Autoclave - landfill
SKYLINE CONVALESCENT	(not available)	On-site incinerator

\* Source - Santa Clara County Health Department

\*\* Steam sterilization and landfilled out-of-county (Fresno)

\*\*\* Incineration

## DESIGNATED WASTES

---

Designated wastes require more stringent management than solid wastes because of their potential for degradation of water quality. Designated wastes are defined as

*(1) nonhazardous waste which consists of or contains pollutants which, under ambient environmental conditions at the waste management unit, could be released at concentrations in excess of applicable water quality objectives, or which could cause degradation of waters of the state.*

*(2) hazardous waste which has been granted a variance from hazardous waste management requirements pursuant to Section 66310 of Title 22 of the California Administrative Code.*

(CCR, Title 23, Section 2522)

Designated wastes may include, but are not limited to nonhazardous contaminated soils from cleanup sites; asbestos-containing waste; metal sludges; tank bottom waste; latex waste; pharmaceutical waste paper sludge and pulp; some soaps and detergents; air pollution control waste; sand from sand blasting and foundry casting; sludges, chemical toilet waste, septage waste, and other wastes containing a high liquid content; ash from combustion processes; slag from coal gasification; cement kiln dust; auto shredder waste; and drilling muds, ores, and mineral extractions.

These wastes may not be disposed in Class III disposal sites; disposal at a Class I or Class II facility is required. Disposal of designated wastes within a Class II facility is preferred since Class I sites are subject to stringent safeguards and are the only facilities which may accept hazardous wastes for disposal. Disposal at a Class III landfill can be authorized by a variance, but variances are granted only for waste which has been rendered nonhazardous through special disposal practices or is found to be nonhazardous in its natural form.

There are no Class II disposal facilities located in Santa Clara County. Therefore, designated wastes are shipped either out-of-county or out-of-state (Utah or Nevada) to Class I or Class II disposal sites.

Two facilities in the San Francisco Bay Area, Richmond Sanitary Landfill in Richmond and the Acme Landfill in Martinez, recently stopped accepting designated waste for disposal. The Richmond facility was scheduled to close its Class II cells by June of 1989, and the Acme Landfill accepted designated wastes until its closure in late 1987. Rough estimates indicate that a minimum of 10,000 tons of designated waste were shipped to these sites in 1987 from generators in this county (Source: Santa Clara County Hazardous Waste Management Plan - April 1989). Closure of these facilities will force waste generators to seek disposal capacity out of the Bay Area or out-of-state, thus increasing the cost of disposal.

The loss of regional Class II disposal capacity, along with the growing amount of waste materials being classified as "designated waste", will create a need for adequate Class II disposal facilities within the San Francisco Bay region. The Implementation Schedule for this Revision will examine the need for, and feasibility of, siting a Class II facility in Santa Clara County.

## **SPECIAL WASTES**

---

Special wastes are nonhazardous solid wastes which require collection, processing, and/or disposal procedures which differ from those normally used for most municipal solid wastes. Categories of special wastes generated in Santa Clara County include abandoned vehicles; agricultural wastes; bulky materials (such as appliances and furniture); dead animals; food processing wastes; grease interceptor wastes; septic tank pumpings; sewage sludge; street sweepings and catchbasin debris; and tires.

In the past, infectious/medical waste and waste oil were defined as special wastes; these wastes are now classified as hazardous wastes and require more specialized handling and treatment (see discussion in Hazardous Waste section, above).

In general, management of special wastes generated in Santa Clara County is considered adequate. Collection, processing, disposal methods, and future trends for each special waste category are discussed below.

### **ABANDONED VEHICLES**

State regulations define scrap automobiles as an unclassified waste which may be disposed in Class III landfills. Before storage or burial in a landfill, parts such as batteries, catalytic convertors, exhaust pipes, brake linings, and gas tanks containing hazardous materials must be removed. Many landfills do not accept vehicles for disposal because of the difficulties they pose.

Scrap automobiles are generally handled by firms specializing in auto dismantling, where usable parts are salvaged, scrap metal is recycled, and other components are disposed as appropriate for the waste type.

Each jurisdiction is responsible for the collection of abandoned automobiles on public roadways. Current programs include the following:

The City of San Jose recently implemented an abandoned automobile program funded by an allocation from the City's Revenue Sharing Fund. The project is a joint effort between City Traffic Operations, the San Jose Police Department, and the Department of Neighborhood Preservation. City residents may trade-in their abandoned vehicles at selected salvage yards belonging to the Santa Clara County Auto Recyclers



Association, and receive up to \$75.00 (\$25.00 from the city and up to \$50.00 from the auto salvager). Salvagers will tow inoperable vehicles, but owners are not paid if the vehicle must be towed to a lot. The program will be monitored by the City for three months to determine if it should be continued.

The City of Sunnyvale recently began an abandoned vehicle program as a part of their spring and fall clean-up campaigns. Residents may make appointments to have abandoned vehicles towed away at no charge by calling the City Public Safety Department and assigning ownership to the City by signing off on owner certificates.

Vehicles abandoned in remote locations are removed through the California Highway Patrol's Abandoned Vehicles Abatement Program. Under this program, cities and counties contracting with CHP are reimbursed for automobiles collected.

Abandoned vehicles collected by local jurisdictions are sent to auto dismantling yards, auctioned off, or returned to the owner for a fee.

It is anticipated that the number of scrap and abandoned automobiles in Santa Clara County will increase in direct proportion to the number of passenger vehicle registrations. Existing auto dismantling businesses in the Bay Area are expected to handle these increased numbers of vehicles and continue to provide for processing and disposal.

## AGRICULTURAL WASTES

Agricultural wastes consist primarily of crop residues from fields and row crops, prunings from fruit and nut trees, and manures from beef and dairy cattle and poultry. These wastes do not significantly add to the overall county waste stream, because much of the waste is reused, sold, or burned.

Field and row crop residues and vineyard prunings are usually disked into soil to add nutrients and act as a stabilizing agent.

Prunings from orchard crops are burned instead of disked into the soil, because incorporation into soil promotes growth of a fungus which can damage crops. Burning has been approved by the Bay Area Air Quality Management District, as this disposal method does not pose a threat to air quality because orchard acreage has significantly decreased to the point where there are not a great amount of prunings to burn.

Handling and disposal practices for animal manures vary depending on the type of animal, its location, and the value of the manure for fertilizer. Most beef cattle in the county are on range lands where manure is left to decay and incorporate into the soil. Slaughterhouses contract with haulers for manure removal; this manure is sold for use as fertilizer. Dairies generally use

multiple pond systems in accordance with State water quality control regulations. After manure dries, it is used as a fertilizer or spread on adjacent grazing land. Effluent is either evaporated or used for pasture irrigation.

Poultry manure is kept in large pits equipped with air filtration systems for continuous drying. Dried material is removed once or twice per year for use as fertilizer. As long as fertilizer cost remains high, demand for animal manures is expected to continue.

These methods of handling agricultural wastes are considered to be adequate.

## **BULKY MATERIALS**

Bulky materials are large, hard-to-handle items such as appliances (white goods) and furniture. These materials are collected by a number of groups throughout the county. Individuals wishing to dispose of bulky goods can call a refuse hauler, charities (such as the Salvation Army and Goodwill Industries), or junk collectors; haul the items to the landfill; or use the materials as a trade-in for new items. At some landfills, controlled salvaging is authorized by the site operator if salvaging does not interfere with proper operation of the landfill. Salvaging results in reuse of valuable materials and decreases wastes requiring landfill disposal.

Some refuse collectors and municipalities provide for annual or semi-annual collection of oversized residential wastes. Collection is generally done by open-bodied trucks with some type of mechanical lifting equipment, such as hydraulically operated tailgates, lifting booms, or separate mechanical loaders.

Appliances and furniture taken to scrap processing centers are utilized primarily for ferrous and non-ferrous metal content. Motors, insulation, upholstery, paint, plastics, and other non-metallic substances, commonly referred to as "fluff," are removed. Remaining metals are shredded, separated, and sold to re-smelters. Motors are sometimes processed separately for copper content. Most insulation removed from appliances is classified as a hazardous material, so special handling and disposal is required.

The quantity of bulky materials is expected to increase in proportion to population growth. Current methods of disposal are considered adequate.

## **DEAD ANIMALS**

The Animal Control Department of the Santa Clara County Public Services Agency is responsible for the collection and disposal of stray dead animals. Disposal of owned animals is the responsibility of the owner, but owners can request collection and disposal by the Department for a fee. Dead animals on State property or highways are the responsibility of State agencies.



Local animal shelters, operated by the Santa Clara Valley Humane Society, the County, and the City of Palo Alto, contract for disposal of small animals. The contracting disposal firm provides a freezer for storage of animal remains and regularly collects remains for transport to a rendering facility.

Several local landfills accept small animals for disposal from animal facilities, veterinarians, and the general public.

Large animals must be collected and processed by a rendering plant within 48 hours of death. Rendering firms serving local needs include a local rendering firm and firms located in Salinas and Sacramento.

The existing system for disposal of dead animals is expected to continue to meet local needs.

## **FOOD PROCESSING WASTE**

The number of food processing facilities in Santa Clara County has decreased significantly in recent years, due mostly to the decrease in local agricultural activities.

In the 1970s, the food processing industry, to cooperatively manage solid waste disposal, formed the Corporation for Environmental Improvement (CEI). At the CEI site, food pulp is spread on land to dry and is then disked into the soil to act as a soil conditioner. The facility operates from June through October, with crops such as barley and hay grown during the remainder of the year.

When established, the facility utilized approximately 2,300 acres in Santa Clara County and San Benito County. At present, CEI utilizes only 500 acres, all in San Benito County.

Current methods of disposal are adequate.

## **GREASE INTERCEPTOR WASTES**

An estimated 10 million gallons of grease waste or 36,667 tons of dewatered grease sludge are produced annually in Santa Clara County. Most is generated by food establishments. "Clean" grease, such as grease from deep fat fryers, is usually collected by recyclers.

Grease waste must be removed from waste water systems because untreated grease can inhibit biological treatment processes used by sewage treatment plants. The most common method of removal is through the use of grease interceptors at the generation point. This method removes grease from the water portion of sewage and concentrates it within the interceptor, allowing the remaining waste water to flow into the sewer system relatively grease-



free. The grease trapped and concentrated in the interceptor is removed by a grease waste hauler for disposal.

Disposal of grease waste has become increasingly difficult because many waste water treatment plants no longer accept grease waste for disposal, or restrict disposal to waste generated within the service district. Also, many landfills cannot accept grease because regulation prohibit disposal of waste containing more than 50% liquid. In this county, the only facility permitted to accept limited amounts of high-moisture content waste is the Guadalupe Landfill.

In order to help resolve the disposal problem, an ad-hoc committee was created in 1987. The committee (composed of staff from the Santa Clara County Health Department, the District Attorney's Office, the County Executive's Office, the San Jose Environmental Enforcement Division, the San Jose City Attorney's Office, several water pollution control plant operators, and a representative from private industry) has developed several recommendations, including

- Adopting a countywide ordinance regulating the collection and disposal of grease waste;
- Assigning enforcement responsibilities;
- Encouraging the siting of grease waste treatment/disposal facilities and/or transfer stations in the area; and
- Encouraging the adoption of State legislation which will regulate statewide management.

The committee has developed a draft enforcement ordinance for consideration by city managers and the County Executive. The draft ordinance would

- Establish a permit system for grease interceptor pumpers/haulers;
- Require that pumpers/hauler have permits;
- Require grease waste to be disposed at approved facilities; and
- Establish a manifest system to assist in tracking waste from generator to disposal or treatment site.

Responsibility for overall enforcement of disposal requirements has not been assigned. The committee has suggested that enforcement of requirements for grease waste haulers would be similar to the County Health Department's role in enforcement of requirements for pumpers of septage and chemical toilets. The cities and the County would be expected to responsible for

enforcing manifest and other requirements of disposal/treatment facilities located within their respective jurisdictions.

## SEPTIC TANK PUMPINGS

Septic tank pumpings and chemical toilet wastes are classified as liquid wastes (wastes containing less than 50 percent solids). Local landfills are not authorized to accept liquid wastes, so these wastes must be discharged at a wastewater treatment plant.

The County Health Department enforces regulations affecting the pumping and disposal of septic tank pumpings and chemical toilet wastes. Licensed septic tank pumpers bid for jobs to pump individual septic tanks. Most septic tank pumpings are transported to the San Jose/Santa Clara, Palo Alto, or Gilroy/Morgan Hill wastewater treatment plants. Chemical toilet wastes are not accepted by the Gilroy/Morgan Hill facility.

Illegal disposal of septic tank pumpings occurs occasionally, with wastes pumped generally into remote sewer manholes to avoid dumping fees.

Although the volume of these wastes is decreasing as urbanization increases, it is anticipated that homes in remote areas of the county will continue to require pumping services.

## SEWAGE SLUDGES

Sewage sludges are produced by secondary waste-water treatment plants. Sludges from wastewater systems where manufacturing industries contribute to the wastewater flow can contain heavy metals and other health hazards and may be a disposal problem. A manufacturing industry organization, the Reclaim Managers Association, works to keep metals out of wastewater by reclaiming these wastes for reuse.

There are currently four sewage treatment plants in Santa Clara County:

The *San Jose/Santa Clara plant* treats wastewater from San Jose, Santa Clara, Milpitas, Monte Sereno, Campbell, Los Gatos, and Saratoga, and from surrounding unincorporated areas. The plant performs primary, secondary, and tertiary treatment of water. Sludge is spread over 640 acres of lagoons, producing around 110 dry-tons of sludge per day. Dried sludge is stock-piled and tested for agriculture, physical, and chemical parameters.

The *Tri-county plant* in Palo Alto serves the cities of Palo Alto, Los Altos, Mountain View, Los Altos Hills, and Stanford University within the county; and East Palo Alto in San Mateo County. Approximately 18



tons of sludge per day are incinerated at the facility. The resulting ash is sold to a copper smelter in Arizona for extraction of heavy metals.

The *Sunnyvale plant* serves the City of Sunnyvale and a small portion of Cupertino. The plant anaerobically digests 18,000 pounds per day of primary sludge and approximately 2,000 pounds per day of algae solids from the tertiary treatment process. Following digestion, approximately 5 tons per day of solids are placed in drying lagoons for dewatering and long-term storage. The City is currently examining several options, including anaerobic digestion of algae solids from the tertiary process to increase methane production and mechanical dewatering of digested sludge followed by landfill disposal.

The *Gilroy/Morgan Hill plant* uses 235 acres of percolation ponds in the treatment of up to 10,000 gallons of wastewater per day. The facility serves the cities of Gilroy and Morgan Hill.

One of the easiest and most cost effective method for disposing of non-hazardous sewage sludge is to landfill the material at a municipal landfill. Such co-disposal is regulated by the RWQCB through Waste Discharge Requirements and Subchapter 15 regulations. Dewatered sewage or water treatment sludge may be disposed only at a Class III landfill under the following special conditions:

- The RWQCB, the County Health Department, and the LEA have approved the disposal of the waste at the facility;
- The Department of Health Services has determined that the waste is non-hazardous;
- The Waste Discharge Requirements for the facility authorize the disposal of the waste;
- The LEA has determined whether a facilities permit modification is necessary;
- The landfill is equipped with a leachate collection and removal system;
- The sludge contains at least 20 percent solids if a primary sludge, or at least 15 percent solids if a secondary sludge, mixture of primary and secondary sludges, or waste treatment sludge. Sludge that does not initially meet this requirement can be dried through ponding or land spreading prior to disposal; and
- A minimum solids-to-liquid ratio of 5 to 1 by weight is maintained, ensuring that co-disposal will not exceed the initial moisture-holding capacity of the nonhazardous solid waste. The actual ratio required by the RWQCB will be based on site-specific conditions.



Regulations for disposal of sludge are becoming increasingly strict, so most landfills in the county no longer accept sludge. At present, only Guadalupe Landfill is permitted to accept limited amounts of high-moisture content waste.

Liquid wastes and sludges may not be accepted at a transfer station unless the station and transfer vehicles are properly equipped to handle the waste, as determined by the LEA, the County Health Department, and, if applicable, the RWQCB.

Until the EPA issues regulations governing sewage sludge handling and disposal, solid waste facilities cannot develop comprehensive sludge disposal programs. The Implementation Schedule of this Revision calls for the monitoring of new regulations, and encourages the development of adequate programs for the proper handling and disposal of sewage sludge.

## **STREET SWEEPINGS AND CATCHBASIN DEBRIS**

Street sweeping is the responsibility of the public works or streets department of local cities. Mechanical sweeping vehicles are used on hard-surfaced, curbed roadways. Inspection and cleaning of catchbasins is generally conducted by the department responsible for street sweeping. Frequency of cleaning varies from community to community, but has decreased in recent years due to budgetary constraints. Wastes are generally disposed at municipal landfills.

The present collection and disposal methods for street sweepings and catchbasin debris are considered adequate.

## **USED TIRES**

Used vehicle tires may be placed at curbside for collection (if the local collection company accepts tires), transported to a disposal facility, or traded when new tires are purchased. Retreadable and nonusable casings left with service stations, tire dealers, and/or retail stores are usually collected by commercial tire haulers. Tires not collected by commercial haulers are either landfilled whole, shredded and landfilled or used as a fuel supplement, or stock-piled. Other than use for retreading, Santa Clara County has no strong markets for used tires.

Rubber tires are classified as a nonputrescible waste and can be disposed of at either a Class III or an unclassified landfill. All local landfills accept used tires for disposal.

Disposal of old tire casings at landfills can present special operational problems. Tires can work up to the surface if not shredded or properly buried, thereby trapping water or serving as harborage and breeding grounds for

vectors. If casings are shredded and concentrated in one area, differential landfill settlement may occur, resulting in standing water on the landfill surface. Because of these and other related difficulties associated with landfilling whole tires, many disposal sites in the county charge high fees for the disposal of tires.

With a very high heat content, about 14,000 BTUs per pound of shreddings, direct combustion is one of the more promising methods for handling large quantities of used tires. In late 1987, a large tire combustion plant near Modesto, California began operation. The plant processes around 800 used tires per hour (4.5 million per year), producing approximately 14 megawatts of electricity. PG&E has contracted to purchase the energy produced by the plant for 20 years. Other tire-burning plants are also operating within the state, but at a much smaller scale.

Within Santa Clara County, it appears that current methods for handling tires are adequate. While high disposal fees could encourage illicit roadside dumping of tire casings, this has not become a problem.





# CHAPTER VIII

## ENFORCEMENT



## ENFORCEMENT AGENCIES

---

Before 1972, regulation of solid waste disposal sites fell to local communities and county health departments, under the authority of local ordinances and the State Health and Safety Code.

Today, solid waste regulations are enforced by a State regulatory framework

California Waste Management Board (CWMB) - Renamed 1989:  
 "California Integrated Waste Management Board"  
 State Department of Conservation  
 State Department of Health Services (DHS)  
 State Air Resources Board  
 Regional Water Quality Control Boards (RWQCBs)  
 Air Quality Management Districts  
 Local Land Use Authorities - Local Planning Agencies  
 Local Enforcement Agencies (LEAs)  
 County Health Departments

A listing of regulatory agencies and their enforcement responsibilities is given in Figure VIII.1.

## ENFORCEMENT IN SANTA CLARA COUNTY

---

With the conversion of open burning dumps to sanitary landfills in 1956, the County Health Department began conducting regular inspections of solid waste facilities countywide. As State and Federal regulatory programs evolved, so did the County's inspection program. In 1977, State legislation mandated the designation of Local Enforcement Agencies to enforce all State and Federal solid waste regulations.

### LOCAL ENFORCEMENT AGENCIES

Title 14 of the California Code of Regulations and Title 7.3 of the California Government Code set forth minimum standards for the handling and disposal of solid wastes as a means of promoting the health, safety, and welfare of California citizens. Standards are to be enforced by Local Enforcement Agencies (LEA) who are appointed by local governing bodies.

The duties of Local Enforcement Agencies include

- Adopting enforcement regulations, as necessary, to implement State Codes and Minimum Standards.



FIGURE VIII.1 - State, Regional, and Local Regulatory Agencies.

<b>ENFORCEMENT OF SOLID WASTE REGULATIONS</b> <b>ROLES OF STATE, REGIONAL, AND LOCAL REGULATORY AGENCIES</b>	
<b>AGENCY</b>	<b>ENFORCEMENT RESPONSIBILITIES</b>
<b>California Waste Management Board (CWMB)</b>	<ul style="list-style-type: none"> <li>• Concurs with locally-written Solid Waste Facility Permits for landfills, transfer stations, and other transfer facilities for compliance with State policy.</li> <li>• Approve requests for Local Enforcement Agency (LEA) status.</li> <li>• Revoke LEA status if LEA fails to perform.</li> <li>• Conduct solid waste facility inspections.</li> <li>• Establish statewide Minimum Standards for Design and Operation of Solid Waste Facilities.</li> <li>• Oversee preparation and maintenance of County Solid Waste Management Plans, Amendments, and Conformance Findings.</li> </ul>
<b>State Department of Conservation</b>	<ul style="list-style-type: none"> <li>• Oversee enforcement of recycling programs established under the California Beverage Container Recycling and Litter Reduction Act (AB 2020).</li> </ul>
<b>State Department of Health Services (DHS)</b>	<ul style="list-style-type: none"> <li>• Approve load-checking programs at Class III landfills.</li> <li>• Oversee preparation of County Hazardous Waste Management Plans.</li> <li>• Approve permits for the transfer, storage, and disposal of hazardous waste.</li> </ul>
<b>Regional Water Quality Control Board (RWQCB)</b>	<ul style="list-style-type: none"> <li>• Set and enforce design and monitoring requirements for solid waste landfills.</li> <li>• Approve load-checking programs at Class III landfills.</li> <li>• Require monthly reports by solid waste landfills detailing amount of solid waste deposited and results of groundwater monitoring.</li> <li>• Review water quality Solid Waste Assessment Tests (SWATs).</li> </ul>
<b>Bay Area Air Quality Management District (BAAQMD)</b>	<ul style="list-style-type: none"> <li>• Regulate solid waste landfill gas.</li> <li>• Review gas mitigation and recovery systems for compliance.</li> <li>• Review air quality SWATs.</li> </ul>
<b>Jurisdiction with Local Land Use Authority</b>	<ul style="list-style-type: none"> <li>• Provide and establish requirements for local land use approval for solid waste facilities.</li> <li>• Coordinate environmental review under CEQA.</li> </ul>
<b>Local Enforcement Agency (LEA)</b>	<ul style="list-style-type: none"> <li>• Issue Solid Waste Facility Permit which governs facility operations.</li> <li>• Enforce non-health related State standards for solid waste disposal within the LEA's jurisdiction.</li> </ul>
<b>County Health Department</b>	<ul style="list-style-type: none"> <li>• Enforce State health-related standards at solid waste facilities countywide.</li> <li>• Serve as LEA for solid waste facilities in unincorporated areas and in jurisdictions which have relinquished LEA designation.</li> </ul>

- Assuring that statutes and standards relating to solid waste handling and disposal are coordinated between with Federal, State, and local agencies and private parties.
- Issuing Solid Waste Facility Permits which govern facility operations within the LEA's jurisdiction.
- Filing with the CWMB, Solid Waste Information System (SWIS) reports outlining results of facility inspections.
- Providing the CWMB, upon request, other specific information as deemed necessary.
- Developing, implementing, and maintaining effective inspection, enforcement, and training programs.

In 1977, in accordance with the California Administrative Code (now the California Code of Regulations), an LEA system was created in the State of California, and implemented in Santa Clara County shortly thereafter. Each of the fifteen cities and the County chose to act as LEA for non-health related standards within their individual jurisdictions (non-health related standards include the enforcement of facility permit conditions at waste facilities). In 1988, the County assumed responsibility for enforcing non-health standards in the cities of Mountain View and Sunnyvale. The County also acts as the LEA for health-related standards countywide.

Figure VIII.2 shows current LEA responsibility, by facility, for enforcement of non-health related standards.

## LOCAL ENFORCEMENT PLANS

Both city and County Local Enforcement Agencies must develop and implement a Local Enforcement Plan. According to State guidelines published in 1981, enforcement plans must reference State and local regulations, and include program goals and objectives, solid waste facility permitting procedures, inspection compliance procedures (for solid waste facilities and collection vehicles), staff training procedures, a time task analysis, an organizational table, and a budget.

In Santa Clara County, enforcement plans vary widely between jurisdictions. Community size and the number and type of solid waste facilities located within the jurisdiction influence the enforcement plan.

## FINANCING LOCAL ENFORCEMENT PROGRAMS

According to Title 7.3 of the California Government Code, Section 66796.2, LEAs can finance enforcement programs through a fee system.

**FIGURE VIII.2 - LEAs for Non-Health Related Standards at Facilities  
in Santa Clara County\***

<b>FACILITY</b>	<b>OWNER</b>	<b>OPERATOR</b>	<b>LEA</b>
<b><u>LANDFILLS</u></b>			
GUADALUPE	Guadalupe Rubbish	Guadalupe Rubbish	Santa Clara County**
KIRBY CANYON	WMI	WMI	City of San Jose
MOUNTAIN VIEW	Mountain View	Wastech, Inc.	Santa Clara County
NEWBY ISLAND	International Disposal Ind. (BFI)	International Disposal Ind. (BFI)	City of San Jose
OWENS-CORNING	Owens-Corning	Owens-Corning	City of San Jose
PACHECO PASS	Gilroy Garbage Co. and South Valley Refuse	South Valley Refuse	Santa Clara County
PALO ALTO	Palo Alto	Palo Alto	City of Palo Alto
ALL PURPOSE	Santa Clara	All Purpose Landfill Co.	City of Santa Clara
SUNNYVALE	Sunnyvale	Oakland Scavenger Co.	Santa Clara County
ZANKER ROAD	Zanker Rd. Resources	Zanker Rd. Resources	City of San Jose
<b><u>TRANSFER STATIONS</u></b>			
SAN JOSE RECYCLING		San Jose Recycling	San Jose Recycling City of San Jose
SAN MARTIN	Sunset Properties, Inc.	South Valley Refuse	Santa Clara County

\* Santa Clara County acts as LEA for health-related standards at all facilities in the county.

\*\* Santa Clara County is currently acting as the LEA for the landfill. If the proposed expanded landfill is annexed into the City of San Jose, the City will act as LEA for the site.



From 1978 to 1988, the County's enforcement program was funded by fees imposed on solid waste facilities in the unincorporated area and by annual registration fees for collection vehicles. However, revenue produced was not sufficient to support a comprehensive inspection and enforcement program, and the County was only able to inspect sites when problems and violations were reported.

In 1988, the County enforcement fee base was revised. Fees are assessed based on the amount of solid waste landfilled countywide. The fee, established at \$0.16/ton, will generate approximately \$300,000 annually. Revenue will support a comprehensive enforcement program, including increased staffing and training for expanded enforcement of health-related standards countywide, and enforcement of non-health related standards in the unincorporated areas and the cities of Mountain View and Sunnyvale.

City enforcement programs are financed in a variety of ways. For cities which have solid waste facilities within their jurisdiction, enforcement revenues are generally a combination of general fund monies and franchise revenues, and tipping fees. In cities without solid waste facilities, enforcement relates largely to litter programs (see page IV-3), non-health related inspection of collection vehicles, and complaint response regarding on-site storage and lack of service, and is typically supported by general funds.

## RECENT REGULATORY CHANGES

---

In the 1984 CoSWMP Revision, two major concerns regarding regulation of solid waste facilities were identified:

- The migration of water and airborne toxic substances from waste sites, and
- The need to monitor closure and post-closure maintenance of landfill sites.

Since 1984, legislation has been passed addressing these areas.

## SOLID WASTE ASSESSMENT TESTS

In 1986, AB 3374 (Calderon) was enacted. This legislation required owners of active and inactive landfills to perform a complex battery of solid waste assessment tests (SWATs) to evaluate threats to air and water quality. Test results would identify off-site migration of toxic materials and gases. SWAT data are being compiled by the Regional Water Quality Control Board and the Bay Area Air Quality Management District.

## CLOSURE AND POST CLOSURE REQUIREMENTS

The adoption of AB 2448 (Eastin) established the Solid Waste Disposal Site Hazard Reduction Act of 1987. The Act requires

- Solid waste landfill owners to prepare closure and post-closure maintenance plans,
- Solid waste landfill owners to set aside funds for closure and post-closure maintenance,
- Establishment of the Solid Waste Disposal Site Cleanup and Maintenance Authority, and
- Implementation of an annual fee on landfills to fund the Authority.

As of January 1, 1989, all landfill owners were required to submit certification to their LEA and the California Waste Management Board that they had

1. Prepared an initial estimate of closure/post-closure maintenance costs,
2. Established a trust fund or equivalent financial arrangement, and
3. Ensured annual deposits into the fund will provide adequate resources for closure/post-closure maintenance.

Complete closure/post-closure plans are due to the CWMB by July 1, 1990, or the first facility permit review date after July 1, 1990.

## GROUNDWATER PROTECTION

Protecting groundwater quality is a major goal in managing a solid waste landfill facility.

Many Federal, State, and local regulations address the protection of water quality. Title 23 (Chapter 3, Subchapter 15) and Title 14 of the California Code of Regulations outline specific regulations and design criteria that all solid waste facilities must comply with. The Regional Water Quality Control Board (RWQCB), the State Department of Health Services, and Local Enforcement Agencies enforce these regulations.

### RWQCB REQUIREMENTS

All landfill facilities are classified by the Regional Water Quality Control Board (RWQCB) according to the site's ability to contain a specified waste and

protect groundwater quality. The RWQCB issues waste discharge requirements for each facility through Waste Discharge Orders (also referred to as Waste Discharge Permits). These orders typically contain

- General site information such as size, location, owner, operator, site classification, type of wastes accepted, site map, and general geology, geography, and hydrology of the site and surrounding areas;
- Waste disposal specifications;
- Leachate and site drainage specifications;
- Self monitoring programs for water quality and gas migration, which includes installation and periodic testing of monitoring wells; and
- Various provisions which outline an implementation schedule and may require submission of a closure plan, a site operation manual, and any other technical reports, plans, and/or implementation programs specific to the site.

As a part of waste discharge requirements, landfill facilities are required to file quarterly reports with the RWQCB listing the amount of waste landfilled, results of routine groundwater monitoring, and results of required landfill inspection programs to identify incidence of litter, ponded water, exposed refuse, and leachate at the site. Any irregularities detected by the water testing or other monitoring programs must be reported. The RWQCB evaluates reports to determine requirements for corrective action.

Testing has resulted in detection of low levels of volatile organic compounds (VOCs) beneath some landfills in Santa Clara County. The RWQCB has not yet determined if the VOCs pose a significant threat to beneficial water uses (A beneficial use is defined as water used for drinking, agriculture, or which supports aquatic life, providing marine or freshwater habitat, etc.).

Enforcement actions will be taken by RWQCB as problems are identified and appropriate remedial measures are developed.

## LOAD CHECKING PROGRAMS

As a part of the Subchapter 15 regulations, landfill operators must develop a periodic load-checking program *"approved by DHS and the regional board ... to ensure that hazardous materials are not discharged at Class III landfills."* All landfills in the county have a program in place to check incoming wastes for hazardous materials. Figure VII.4 presents information on load-checking programs for each landfill.



FIGURE VIII.3 - Summary of Landfill Load Checking Programs

LANDFILL FACILITY	LOAD When	CHECKING #	PROGRAM Process Used	HOW HANDLING SUBSTANCES FOUND	EDUCATION Employees	PROGRAMS Customers
GUADALUPE MINES	Weekly	3-5 Loads	Visual check at gate. Spread-out loads.	Persons responsible for transporting the waste to the site or placing waste in drop boxes/containers will be contacted and charged fees incurred by landfill.	In-house training	Flyers distributed at at the gate-house. Brochures are also available.
KIRBY CANYON	Weekly	3-5 Loads	Spread-out loads.	Parties responsible for transporting the waste to the landfill will be notified and charged for any disposal costs incurred.	In-house training	Letter to customers outlining program.
MOUNTAIN VIEW	Randomly	1 Load	Visual check at gate.	Require hauler to take the prohibited substance when leave. For individuals, suggest city HHW day or recycling location for oil or batteries.	In-house training	Information in "The View" and utility bills.
NEWBY ISLAND	Daily	4 Loads	Spread-out loads. Visual check at gate with ladders and mirrors.	Any prohibited substances found are returned with the hauler who brings them. Loads checked at gate and on face. Charge customers must sign a statement of responsibility for any waste hauled into site.	In-house training	Notices on gate receipts.
PACHECO PASS	Randomly	1 Load	Spread-out load.	All incoming loads are checked in the presence of the hauler so that prohibited items found are immediately returned.	In-house training	Information through billing inserts, flyers, and handouts.
PALO ALTO	Weekly	5-6 Loads	Spread-out load at face. Visual check at gate with ladder.	Customers identified as bringing in prohibited substances must remove them. Individuals are informed of city HHW days.	In-house training	HHW handouts and notices in city utility bills.
ALL PURPOSE (Santa Clara)	Weekly	4-8 Loads	Spread-out loads at Face. Use mirrors and ladders at gate if necessary.	Commercial customers identified and required to take back. If origin unknown, substances are removed and properly disposed of. Try to help individuals with ways to properly dispose of waste.	In-house training	Information is distributed in the City HHW brochures. Notices sent to commercial customers.
SUNNYVALE	Randomly	1 Load	Spread-out loads.	Prohibited substances identified at the gate house are sent back with hauler. Items found at the face are removed and placed in chemical storage lockers.	In-house training	Information flyers mailed for HHW Cleanup Days.
ZANKER ROAD	Randomly	1 Load	Spread-out load.	All incoming loads are checked in the presence of the hauler so that prohibited items found are immediately returned.	In-house training	Information through billing inserts, flyers, and handouts.

Hazardous materials discovered at solid waste facilities must be properly stored until the materials can be removed by a registered hazardous waste hauler. Unless granted a variance, Class III landfills may not store hazardous substances on site for more than 144 hours (6 days). To comply with State regulations, facilities must have hazardous materials removed weekly, regardless of the volume of material on site. Only one facility, the Sunnyvale Landfill, has applied for a 90-day variance.

Since current requirements are considered inefficient and costly, the State is evaluating the possibility of designating solid waste facilities as hazardous waste generators. This would allow facilities to store hazardous substances on site, in an approved container or area, up to 90 days without a variance.

The County, as the LEA for health-related standards countywide, is responsible for ensuring that hazardous wastes are not deposited in Class III landfills. The County Health Department is presently exploring the possibility of working with facilities in their load check efforts to better identify and handle hazardous substances found at Class III facilities.

## THE FUTURE OF ENFORCEMENT

---

Coordination and financing of enforcement activities continue to be a challenge for California communities. Enforcement of specific programs may overlap among some jurisdictions, which further emphasizes the need for coordination and cooperation among all agencies.

A countywide databank on operating and former landfill sites has been established as part of the CoSWMP to help promote coordination efforts. The Implementation Schedule of this Revision encourages further development of a more "ideal" countywide enforcement program, including the feasibility of centralizing more LEA functions.





# **CHAPTER IX**

## **PLAN ADMINISTRATION**



## ADMINISTRATIVE STRUCTURE

---

Responsibility for an effective solid waste management system in Santa Clara County is shared by many organizations, both public and private. As discussed in sections below, these diverse organizations communicate through participation in the Countywide planning and policy development process.

The Santa Clara County Board of Supervisors has statutory responsibility for preparation and maintenance of the County Solid Waste Management Plan. Plan development is the responsibility of the Solid Waste Program which is part of the County Planning and Development Department's Office of Toxics and Solid Waste Management. Countywide involvement in the planning process is provided by the Intergovernmental Council, the Solid Waste Committee of the Intergovernmental Council, and a Technical Advisory Committee which advises the Solid Waste Committee.

In addition to staff of the County Solid Waste Program, development of this Plan Revision has involved elected officials representing each city and the County; staff members representing each of the 15 cities; County employees representing the Planning Department, the County Executive's Office, and the Health Department; representatives of the waste management industry; and representatives of community organizations. Although each organization makes independent decisions, cooperation and coordination result from participation in the Countywide process.

This structure helps to build consensus on approval of plan revisions and amendments at the local level. Consensus is essential because changes to the Plan require approval by a majority of cities containing a majority of the incorporated population of the County, as well as by the Board of Supervisors. County structure and process are described in sections below and illustrated in Figure IX.1, Countywide Solid Waste Planning Structure.

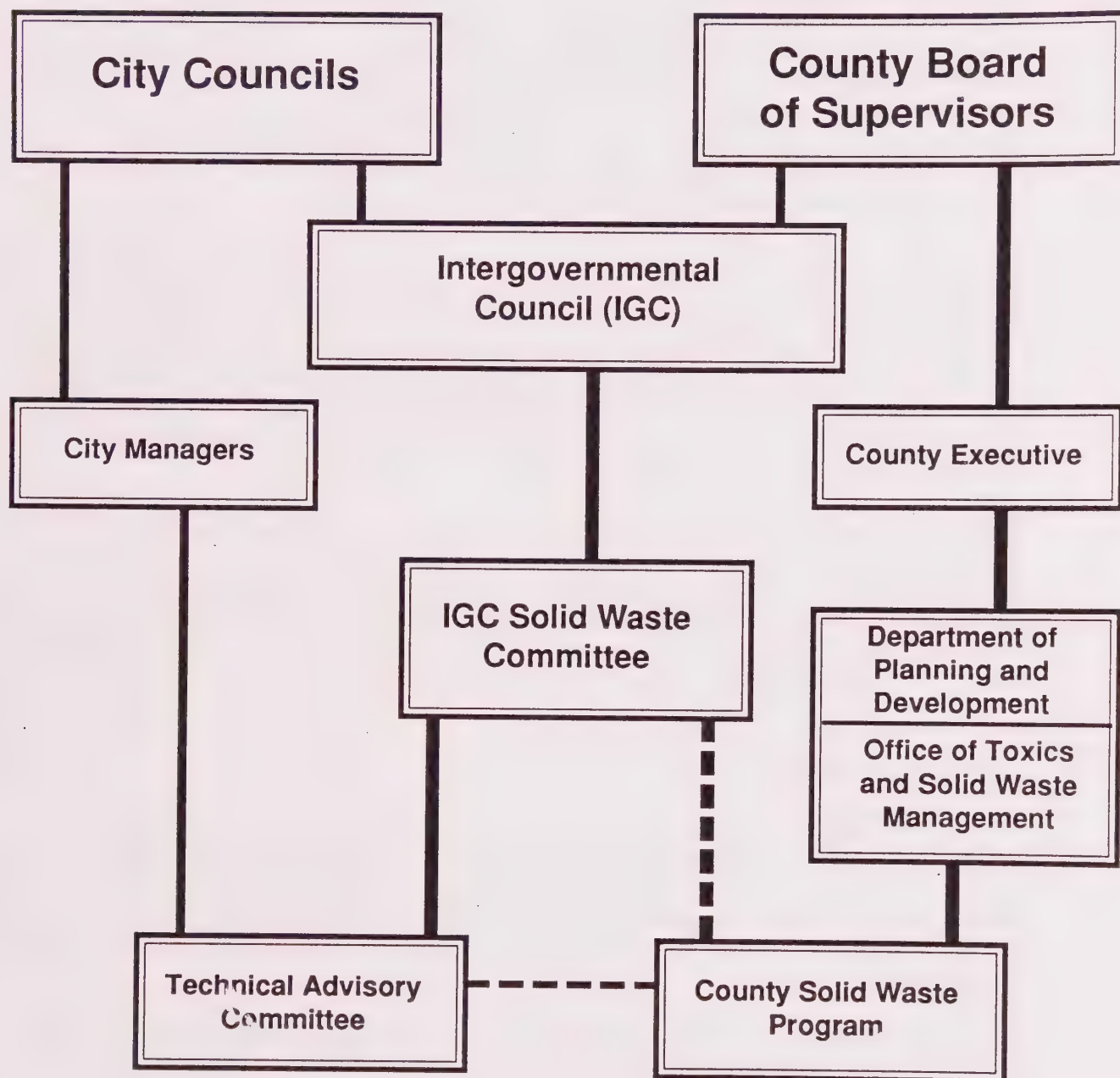
## PROGRAM IMPLEMENTATION

The County Solid Waste Program (Program) is responsible for preparing, maintaining, and administering the CoSWMP. Activities include data gathering, evaluation, and dissemination; and facilitation and advocacy for identified solid waste concerns and adopted policy. The Program also provides staff support to the committees described in the Policy Development Process section, below.

The goals, policies, and implementation measures developed during the plan revision process are listed in Chapter II. These will form the structure for a comprehensive workprogram to be implemented following adoption of this Plan Revision.



FIGURE IX.1 - Countywide Solid Waste Planning Structure



Program staff coordinate with elected officials and with staff of the cities, districts, private collection companies, and landfill operators. Staff provides liaison with State and regional regulatory agencies, local governments, and the private sector.

### **Program Budget**

County Solid Waste Program staff administer the Plan budget. Planning activities are supported by a per ton fee imposed on landfilled wastes. Payments are received by the Department of Planning and Development managed by the County Department of Finance, deposited in a special fund, and allocated to the Program through the County budgeting process.

## **POLICY DEVELOPMENT PROCESS**

To develop and administer a Plan that meets the diverse needs of local jurisdictions, the County solid waste planning process facilitates consensus-building. The intergovernmental committees provide a forum for decision making, coordination among local jurisdictions, and mutual assistance in development of specific projects to meet local solid waste management needs.

The three intergovernmental committees involved in the Countywide solid waste management planning process are described below. Current members of each committee are listed in Appendix A.

### **Intergovernmental Council**

The Intergovernmental Council (IGC) is an advisory body established by County ordinance. It is composed of 22 elected officials from local jurisdictions. The IGC serves as a key advisor to the County Board of Supervisors and city councils on matters of intergovernmental concern. Responsibilities include reviewing and recommending policies and procedures related to solid waste management planning.

### **Solid Waste Committee**

In 1986, based on a recommendation by the Solid Waste Task Force, which had been organized to study the County solid waste policy structure, the IGC formed the Solid Waste Committee (SWC) to replace the Solid Waste Planning Committee.

The SWC is composed of nine elected officials from local jurisdictions. Membership is structured to provide balanced representation of the viewpoints, problems, and issues in different areas of the County. Because SWC focuses solely on solid waste issues, the committee achieves more

involvement in policy development by elected officials than was possible under the previous structure. Committee members are asked to commit to at least two years of service to allow for continuity of membership.

The SWC meets monthly and is responsible for informing the IGC on current solid waste planning issues. The SWC also develops and recommends public policies on solid waste management. The SWC receives recommendations from the Technical Advisory Committee and adopts policy recommendations to be made to the full Intergovernmental Council. The SWC Chair works to achieve full committee consensus on recommendations to the IGC.

### **Technical Advisory Committee**

The Technical Advisory Committee (TAC) was established in 1978 to advise the Solid Waste Planning Committee on technical aspects of solid waste management and policy. It is composed of solid waste management professionals from local cities, the County, the private sector, and representatives of various community organizations.

City representatives, selected by their respective city managers, may be staff of departments such as public works, planning, city manager's office, or solid waste program. Representatives of the private collection and disposal industry include landfill owners and operators, recycling program operators, public/government liaison officers, and collection system owners and operators.

Community representatives were added to the TAC in 1988 to improve community awareness and provide broader public participation in Countywide decision making on solid waste management issues. Community members include representatives of environmental groups, the medical profession, the housing industry (representing residential waste generators), and the educational community.

The TAC brings a wide spectrum of viewpoints and expertise together to focus on Countywide solid waste management and issues affecting individual communities. The TAC's primary role is to provide technical advice and support to the SWC. It assists in development of policies which can receive Countywide approval. This role is particularly important during development of plan revisions and amendments.

A secondary function of the TAC is to provide a forum for exchange of information of mutual interest and value. Many members of the TAC are members of local, State, and/or national organizations which focus on particular aspects of solid waste management. Some participate in task forces or other advisory groups on issues involving waste management.

The TAC has three standing subcommittees which focus on special issue areas: collection and disposal, resource recovery, and enforcement.



An Implementation Committee, composed of the chairs of the three subcommittees plus the TAC chair, considers overall needs for accomplishing the CoSWMP implementation program, oversees referrals to other committees, and provides a liaison with the Solid Waste Committee.

### **Committee Process**

The IGC or IGC member jurisdictions refer solid waste issues to the SWC. For example, a host jurisdiction would propose an amendment to the CoSWMP to incorporate a new facility. County Solid Waste Program staff also brings issues to the SWC.

Issues are referred to the TAC for discussion and recommendations, as required. In some cases, the TAC brings items to the Solid Waste Committee. For example, recommendations on proposed legislation may be prepared by TAC for SWC consideration.

In the development of specific local projects, such as CoSWMP Amendments and environmental documentation, the TAC may initiate the preparation of documents or reports necessary for plan implementation. Recommendations are then made to the SWC and then by the SWC to the IGC.

The TAC's technical review provides the SWC with the following information:

- Feasibility of technical proposals;
- Policies to achieve program objectives; and
- Input regarding Countywide consensus on solid waste issues.

The SWC can appoint ad hoc subcommittees to study issues in detail. This provides for improved flow of information to elected officials.

Once SWC consensus is reached on Countywide solid waste program planning, needs, and issues, action items are referred to the IGC for approval. Then, IGC recommendations are presented to the County Board of Supervisors and city councils for action.

### **Effectiveness of the Policy Development Process**

The administrative structure described above has provided for successful consideration of plan-related issues by the IGC, and subsequently by the Board of Supervisors and city councils. Consensus has been achieved at both administrative and policy levels.

Several months are required to move an issue through the various levels of consideration. For example, a plan amendment takes a minimum of nine months to complete, given the necessary committee and agency reviews, and

the mandated formal review processes. This is true even if a proposed amendment is relatively simple and uncontroversial.

Although streamlining the policy development process is desirable, the current structure has been successful in building the consensus which is essential in developing workable programs and policies. As part of the Plan Revision workprogram simplifying the process will be evaluated. For instance, the feasibility of instituting a joint powers agency or agencies, or empowering an existing agency, such as the IGC, with decision making authority over uncontested plan amendments will be assessed.

## **SUBREGIONAL SOLID WASTE MANAGEMENT**

---

The 1975 CoSWMP established four subregional areas for solid waste management purposes. Originally proposed as a methodology for establishing joint powers authorities, the plan called for each subregion to independently plan for disposal capacity and develop financing and administrative mechanisms.

The North County subregion formed a joint powers agency (JPA), the North County Solid Waste Management Authority, and performed a number of studies to determine needs and evaluate options. An attempt to site a new landfill and waste-to-energy facility at Bryan Canyon failed due to public opposition, and led to dissolution of the Authority.

Although the subregional governance concept called for in 1975 has not significantly changed local waste management, the concept of subregions remains. Additionally, the policy forbids transportation of wastes collected pursuant to municipal collection agreements across subregional boundaries for disposal.

In 1988, the north and central subregions were consolidated to provide for disposal of north county wastes in landfills located in the City of San Jose. There are now three subregions:

North/Central Region: Palo Alto  
 Mountain View  
 Los Altos  
 Los Altos Hills  
 Sunnyvale  
 Cupertino  
 Santa Clara  
 San Jose  
 Milpitas  
 Adjacent County Areas

West Valley Region:	Campbell Monte Sereno Los Gatos Saratoga Adjacent County Areas
South County Region:	Morgan Hill Gilroy Adjacent County Areas

Figure IX.2 shows the subregional boundaries in Santa Clara County.

Local policies and solid waste planning are moving in the direction of recognizing joint needs for conserving existing landfill capacity, developing additional capacity, and maximizing recycling throughout the County. This suggests that the subregional policy may become outdated, but at present the boundaries are still desired by some communities, and remain a part of the solid waste system in Santa Clara County.

## ADMINISTRATIVE ALTERNATIVES

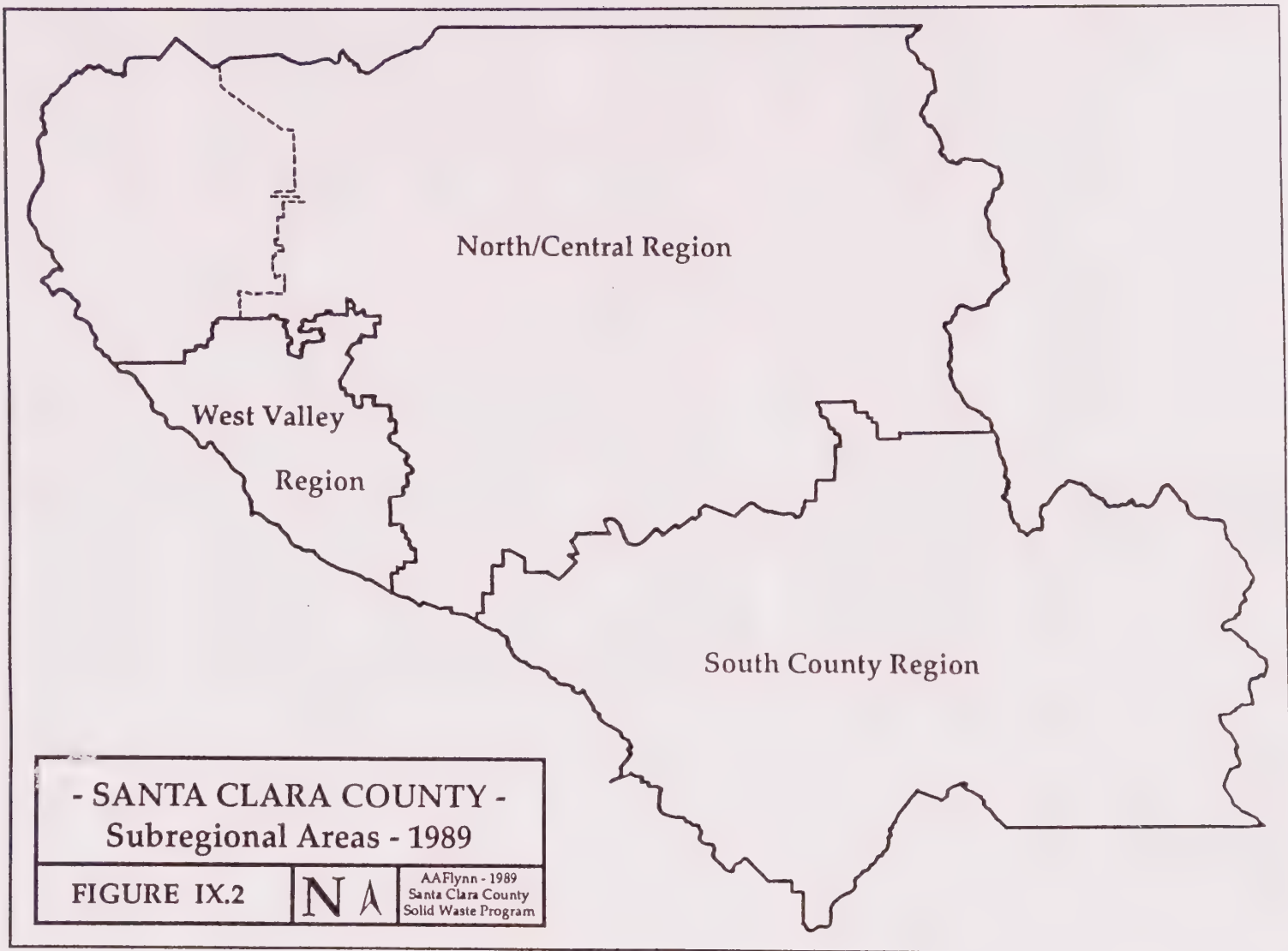
In 1985, the Solid Waste Task Force identified two alternatives for solid waste management systems in Santa Clara County: (1) development of subregional joint powers agencies, or (2) development of a Countywide joint powers agency with full or limited powers of approval for facility changes and CoSWMP amendments. These alternatives are discussed below.

### Subregional Joint Powers Agencies

In the early years of comprehensive solid waste planning in Santa Clara County, local jurisdictions favored planning and developing solid waste management facilities on a subregional basis. However, historic disposal patterns have changed significantly. As noted in Chapter V, of the nine operating landfills, the four publicly-owned sites are expected to close in the 1990s. Of the five private landfills, three are located within the City of San Jose. When the Guadalupe Landfill is annexed into San Jose (see Chapter V), even more of the local disposal capacity will be located in that City.

To date, seven north county cities have contracted for 30 years of waste disposal services at landfills located in the City of San Jose. Events at other landfills suggest that more changes may occur. Pacheco Pass Landfill, used by the residents of the southern portion of the County, can provide eight years of capacity to the cities and adjacent unincorporated area as required by Government Code Section 66780.2. However, remaining life of the site will be affected by the operator's ability to use the entire permitted expansion area (see Chapter V for details). If the facility closes earlier than anticipated, south county cities will need to seek capacity elsewhere.





Finally, other counties may seek capacity within Santa Clara County. Regional cooperation in provision of disposal capacity is encouraged by regional, State, and federal regulatory agencies.

These changes to historic disposal patterns appear to make small area joint powers agencies less feasible. Therefore, this Plan Revision advocates a more regional approach to solid waste management.

### **Countywide Joint Powers Agency**

A Countywide joint powers agency could be established by local elected officials and vested with limited or full authority to make decisions on solid waste management. Issues would include plan amendments for siting of new facilities, disposal arrangements, collection territories, and other issues.

At present, facilities are owned and operated by private industry or by municipalities in Santa Clara County. There are no County-owned or operated facilities. Moreover, enforcement responsibilities are shared, with most cities designated as LEAs within city boundaries and the County Health Department serving as the Countywide LEA for health-related enforcement. County government, although responsible for regional planning and management, has no direct role in facility development and management. Instead, cities have pursued local studies and programs directed toward solutions of individual jurisdictional problems.

To date, individual or informal interjurisdictional group actions have been successful in providing for solid waste management. Since the existing system is considered sufficient by those cities, there is little interest in assigning powers to another agency.

However, an interjurisdictional decision making body could be an alternative. A "solid waste" commission could be assigned some decision making authority. Authority could include

- Approval of amendments to the CoSWMP;
- Ability to change the plan fee; and/or
- Analysis of potential solid waste facilities sites.

The Solid Waste Committee has proposed further study of the concept of utilization of a commission structure for solid waste management.

## **ENFORCEMENT RESPONSIBILITIES**

---

See Chapter VIII for details on the roles and responsibilities of local enforcement agencies and the County Health Department. Funding of enforcement programs is also discussed.

## **ECONOMIC FEASIBILITY**

---

Financing of each part of the solid waste management system is described in Chapters discussing the various program components:

- Collection and disposal services are funded by user fees and charges, see Chapters IV and V;
- Recycling programs are supported by revenue from sales of collected materials, general fund monies, and/or subsidies supported by collection fees, see Chapter VI;
- Special programs and services provided by local jurisdictions are funded through user fees, tonnage charges assessed to local landfills, or general fund monies, see Chapter VII;
- Enforcement programs are generally funded from general fund monies or tonnage fees assessed to landfills, see Chapter VIII;
- CoSWMP preparation, maintenance, and implementation is funded by tonnage fees assessed to landfills, see Program Implementation section, above.

Adequate resources have been identified to support the ongoing program described in this Plan Revision. Funding to support new programs or program augmentation is developed as part of the program planning process.

## **PUBLIC PARTICIPATION AND INFORMATION**

---

Public participation throughout the Plan Revision development and implementation process is achieved by including representatives of citizen groups in the Technical Advisory Committee.

During the Countywide Plan Revision review and approval process, public hearings provide additional opportunity for public participation.



Since 1984 public information activities have increased significantly in Santa Clara County. These activities are carried out both at the solid waste management plan administration level and by individual jurisdictions.

## COUNTY PUBLIC INFORMATION PROGRAMS

As part of Plan Administration duties, Program staff prepares and publishes the IGC Annual Report on Solid Waste Planning in Santa Clara County. The Executive Summary of the Santa Clara County Solid Waste Management Plan, 1989 Revision will be prepared for distribution as the Annual Report for 1989.

Countywide Resource Rally events were coordinated by Program staff in the Spring of 1986 and 1987. This rally publicized events, promoted recycling, and various litter and city-wide cleanup efforts.

A series of recycling workshops for the commercial/industrial sector was co-sponsored with the Santa Clara County Manufacturing Group in 1986 and 1987. A recycling workshop for local government officials and others was held in May 1989.

## CITY PUBLIC INFORMATION PROGRAMS

The cities have implemented a number of special public information programs in support of special events, such as Household Hazardous Waste Drop-off Days, which are publicized via inserts in refuse collection bills. Most cities have participated in Resource Rally, Keep America Beautiful, or CLEAN activities.

Billings for solid waste collection and disposal regularly include information on management of wastes, including information on waste reduction, recycling, handling of household hazardous wastes, and other issues. Cities also promote proper waste management through public information provided at such events as the County Fair and other public gatherings.

## CONTINGENCY PLANNING

---

Contingency planning assures that the solid waste system continues to function when an unavoidable breakdown in normal daily operations occurs. As discussed above, responsibility for effective solid waste management in the County is shared by many public and private organizations. This structure results in sharing the responsibility for contingency planning, as well as for other system components as discussed in this Plan Revision.

In most emergency situations, the affected local jurisdiction and/or the service provider implements appropriate contingency measures. Contingency planning is generally provided for in the specific collection and disposal agreements between jurisdictions and service providers.

General measures that may be included in response to possible emergency situations are summarized below. In addition, citizens should be educated in advance on steps to take in the event of an emergency. Public information should include information on (1) different types of waste, (2) storage of waste until collected or disposed, (3) identification of wastes that can be disposed at nearby sites and wastes that must be removed to a designated disposal site, and (4) handling of incompatible wastes.

## LABOR DISPUTES

In the event of a labor dispute that disrupts collection and/or disposal services, the following measures may be taken:

- The franchise company will endeavor to assure continuation of adequate services;
- The franchising jurisdiction may exercise the right to take over the operation if acceptable services cannot be maintained;
- Emergency response would be implemented only if the franchise operator and the franchising jurisdiction agree that service cannot be adequately maintained.

## FUEL SHORTAGES

In the event of a severe fuel shortage, provision of limited or partial collection and disposal services may become necessary. Measures to be considered may include

- Controlling fuel allocated during service and restricting or temporarily suspending the use of fuel for lower-priority work;
- Assigning priorities for fuel as outlined by each operator and agreed to by the serviced jurisdiction. Assuring collection and disposal of solid waste that can threaten public health and well being should be mandatory;
- Granting a priority for disposal facilities and collection services within the County when allocating fuel.

## **PLANT AND/OR EQUIPMENT BREAKDOWN**

If a transfer station becomes temporarily inoperable, wastes could be hauled directly to a disposal site.

Equipment breakdowns are the responsibility of a solid waste facility owner/operator. In the event of a breakdown that affects operations, measures might include

- Use of reserve equipment;
- Extended hours of operation;
- Rental of additional equipment.

## **HIGHWAY OR STREET BLOCKAGE**

If a street or highway blockage (due to construction or other cause beyond the company's control) will interrupt normal collection services, efforts should be made to ameliorate any problems. Customers should be notified if collection services will be delayed more than 12 hours.

All collection companies should have contingency plans to provide for clean-up of waste spills within a reasonable time. Companies should coordinate with local jurisdictions to assure that response measures are in conformance with local regulations.

## **UNEXPECTED FACILITY CLOSURE OR SHUTDOWN**

If a solid waste facility must cease operation on short notice, wastes should be temporarily reassigned to the nearest available facility. The local jurisdiction should make permanent arrangements as soon as possible.

## **NATURAL AND/OR MAN-MADE DISASTER**

In case of a widespread natural or man-made disaster, a Countywide or regional civil defense or disaster plan may be implemented by State or federal agencies. In this situation, administration of contingency solid waste management activities would revert to the local enforcement agency.



Appropriate emergency action should be taken in the event of suspension of normal collection service, limited or partial service, or the unavailability of equipment or manpower. Actions for consideration include

- Suspension of normal collection service - Distribute drop boxes and containers accessible to residential, commercial, and industrial sources. Direct citizens to take refuse to designated disposal sites.
- Limited or partial service - Decrease the frequency of service to the affected area. Impose curbside service as opposed to backyard pickup. Suspend service to portions of the affected area and instruct citizens about disposal options.
- Unavailability of equipment and/or manpower - Use equipment from local governmental or private sources. Use supervisory local governmental personnel, volunteers, or civil defense manpower.

# APPENDICES





## APPENDIX A

### INTERGOVERNMENTAL COUNCIL (IGC)

---

Jeanette Watson  
City of Campbell

John Plungy  
City of Cupertino

Roberta Hugan  
City of Gilroy

Penny Lave  
City of Los Altos

Bill Siegel  
Town of Los Altos Hills

Joanne Benjamin  
Town of Los Gatos

Elwood Johnson  
City of Milpitas

Daniel Wyman  
City of Monte Sereno

Lorraine Barke  
City of Morgan Hill

Maryce Freelen  
City of Mountain View

Gail Woolley  
City of Palo Alto

Nancy Ianni  
City of San Jose

Pat Sausedo  
City of San Jose

Eddie Souza  
City of Santa Clara

Karen Anderson  
City of Saratoga

Barbara Waldman  
City of Sunnyvale

Dianne McKenna, Supervisor  
Santa Clara County Board of  
Supervisors

Ron Gonzales, Supervisor  
Santa Clara County Board of  
Supervisors

Patrick T. Ferraro  
Santa Clara Valley Water  
District

Curtis Harrison  
Special Districts

Joe Simitian  
School Boards Association, K-12

Al Chasuk  
Community Colleges

## IGC SOLID WASTE COMMITTEE (SWC)

---

Robert L. Hamilton  
Guadalupe Users

Richard Napier  
Kirby Canyon Users

Elwood Johnson  
Newby Island Users

Roberta Hughan  
Pacheco Pass Users

Pat Sausedo  
City of San Jose

Dianne McKenna  
Santa Clara County

Joe Pandit  
Santa Clara Valley Water  
District

Maryce Freelen  
Member-At-Large

Dave De Lozier  
Member-At-Large

## TECHNICAL ADVISORY COMMITTEE (TAC)

---

Barbara Lee  
City of Campbell

Bert Viskovich  
City of Cupertino

Em Rojas  
City of Gilroy

Bruce Bane  
City of Los Altos

Bill Ekern  
Town of Los Altos Hills

Regina Falkner  
Town of Los Gatos

Cynthia Rosson  
City of Milpitas

Rosemary Pierce  
City of Monte Sereno

Ted Thoeny  
City of Morgan Hill

Mark Bowers  
City of Mountain View

Ted Janus  
City of Palo Alto

Gary Brian Liss  
City of San Jose

Rick Mauck  
City of Santa Clara

Todd Argow  
City of Saratoga

Valerie Lenz  
City of Sunnyvale

Sally Logotnetti  
County Executive's Office

Tony Pacheco  
County Health Department

Robert L. Sturdivant  
County Planning &  
Development

Roger James  
Santa Clara Valley Water  
District

Jim Lord  
Clara-Mateo Garbagemen's  
Association

Nick Zukowski  
Clara-Mateo Garbagemen's  
Association

Cynthia Sievers  
Clara-Mateo Garbagemen's  
Association

Timothy S. Flanagan  
San Jose Collection Contractor  
(Waste Management, Inc.)

Gregory Plant  
Associated General Contractors

Penny Lockhart  
American Association of  
University Women (AAUW) -  
Gilroy Branch

Pat Miller  
California Resource Recovery  
Association (CRRA)

Jim Payton  
Central Labor Council of Santa  
Clara County

Cindy Rubin  
Committee for Green Foothills

Irene Sampson  
Leagues of Women Voters of  
Santa Clara County

Nancy Olson  
Peninsula Conservation Center

Steve Tedesco  
San Jose Chamber of Commerce

Brian Rector  
Santa Clara County  
Manufacturing Group

David Discher, M.D.  
Santa Clara County Medical  
Society

Jill Boone  
Sierra Club - Loma Prieta  
Chapter

Palo Alto War-On-Waste

Robert H. Clarke  
San Jose State University





## APPENDIX B

### INDEPENDENT RECYCLING FIRMS

---

The following independent firms are currently collecting, buying and selling secondary materials in Santa Clara County:

#### MIXED COMMODITIES

Diversified Recycling Services, dba San Jose Recycling II  
1675 Pomona Avenue  
San Jose, CA 95110

San Jose Recycling II collects and accepts mixed loads of recyclable materials from commercial/industrial accounts at a three-acre facility in San Jose. Among their larger clients are National Semiconductor, Apple Computer, Hewlett Packard, Bell Industries, and Barnes-Hind.

Materials accepted at the facility are mixed corrugated, mixed paper, plastics, foam rubber and metal.

Mixed loads are sorted by hand. Approximately 7 loads of cardboard a day are shipped to Weyerhaeuser, which has a facility nearby. Only 5-10% of incoming material is not recyclable, and is disposed of at the nearby San Jose Transfer Station or Kirby Canyon Landfill.

Wood wastes are also accepted, mainly from roofing, landscaping, and tree-trimming businesses (see page VI- ).

The operators of Recycling II have discovered a healthy market overseas for foam rubber and plastics. Currently, they are shipping two or three containers of foam rubber and plastics per week.

Zanker Road Resource Management  
765 Los Esteros Road  
San Jose 95134

Resource recovery activities at Zanker Road center around the recovery of wood waste, corrugated cardboard, metals, concrete and asphalt. Wastes are accepted from private haulers and the general public, and a discount is given for clean recyclable loads.

Clean loads of wood waste are sorted in the wood recovery area, where metals, concrete and other contaminants are removed by hand (see Chapter IV).

Mixed demolition loads are currently stockpiled, awaiting a unique sorting system featuring a flotation tank. The material will be screened to remove loose dirt and other fine material. After screening, the remaining material will be loaded on conveyors which carry it to a tank of water. The floating wood waste will be skimmed off the top of the water and conveyed up a belt to a tub grinder for size reduction. A walking floor will then carry the concrete and asphalt away for grinding.

Highly contaminated loads go directly to the face of the landfill where corrugated is removed by hand to a rear-loading compactor.

Silicon Valley Recycling  
(415) 969-9817  
Mountain View, CA

Silicon Valley Recycling is owned and operated by a former electronics industry facility manager. The firm collects mixed recyclables from commercial/industrial establishments and multi-unit residential complexes. Materials collected are cardboard, newsprint, white and computer paper, aluminum and glass.

A-1 Recycling Circus  
150 Howson Street  
Gilroy, CA

Collects computer paper, newsprint, cardboard, glass, aluminum and scrap metal.

Trine Martin Recyclers  
8565<sup>1</sup>/<sub>2</sub> Monterey Road  
Gilroy, CA

Collects glass, aluminum and scrap metal.

## **METALS**

LMC Corporation  
1800 Monterey Highway  
San Jose 95112

Deals in all kinds of metals; can provide drop boxes, hauling services.



Markovits and Fox  
1633 Oakland Road  
San Jose 95131

Markovits and Fox has been in the recycling business for over 100 years, beginning as the San Jose Bottle Yard in 1886. In the early days, they recycled rags, bottles and sacks in addition to metals. The company has concentrated on metals recycling since the 1950s.

Metal scrap is received from scrap dealers, recycling centers and a wide range of industrial, machining, electronic, high technology and post-consumer sources. Metals are sorted, processed and packaged on a twenty-acre site, using a variety of methods. A state-of-the-art, environmentally sound wire recycling system was installed in 1985, which can process up to 10,000 pounds of material per hour.

The company buys and sells all kinds of metals, and can provide bins.

## PAPER

Container Corporation of America  
2222 Calle de Luna  
Santa Clara 95050

Buys white office paper, computer paper and baled cardboard for use in manufacturing recycled paper products, done on-site. Provides bins and hauling.

Independent Paper Stock  
201 Bassett Street  
San Jose 94103

Buys all grades of ledger paper, newsprint, and cardboard. Provides bins and hauling.

Paper Recovery  
1501 Terminal Avenue  
San Jose 95112

Buys computer paper, white and colored ledger paper, mixed paper. Provides container service.

Weyerhaeuser Paper Company  
42305 Albrae Street  
Fremont 94538

Buys computer paper, white ledger, cardboard. Provides equipment and assistance if more than 1000 pounds of material per week is generated.

Arata Western, Inc.  
388 E. Alma  
San Jose 95112

Buys computer paper, white ledger, color ledger, newsprint and cardboard.

Champion Paper Recycling  
1106 Calle Oriente  
Milpitas 95035

Buys computer paper, white ledger, baled cardboard. Provides 55 gallon drums with lids and paper stackers.

Coastal Fibers  
1045 Commercial Court  
San Jose 95112

Buys cardboard only.

## GLASS

Circo Glass  
6565 Smith Avenue  
Newark 94560

Circo collects glass, and currently operates a hotel and restaurant glass recycling program in Santa Clara County. The company provides containers or bins and pick up service to operations generating 25 or more cases of glass per week. In addition to container glass, which does not have to be sorted by color, CIRCO will also take plate glass.

Covens-Illinois  
6150 Stoneridge Mall Road, Suite 375  
Pleasanton 94566

Will buy container glass only.

Recycle America  
Waste Management, Inc.  
1140 Campbell Avenue  
San Jose 95110

Recycle America operates a glass recycling program in cooperation with the California Glass Recycling Corporation. Most of the businesses served are restaurants, bars and hotels.

Bins (2 or 3 cubic yards) are provided to businesses collecting at least 25 cases of glass per week.

## WOOD WASTE

Dynamic Pallets  
P. O. Box 677  
Antioch, 94509

Gaylord Container Corporation  
Wilber Avenue  
Antioch, CA 94509





**APPENDIX C**  
**PROPOSED NEGATIVE DECLARATION**





# Proposed Negative Declaration

A notice, pursuant to the California Environmental Quality Act of 1970, as amended (Public Resources Code 21,000, et sec.) that the following project when implemented will not have a significant impact on the environment:

File Number <b>none</b>	APN(s) <b>countywide</b>	Date <b>08/24/89</b>
Project Name <b>Santa Clara County Solid Waste Management Plan</b>	Project type <b>waste</b>	
Owner <b>n/a</b>	Applicant <b>Santa Clara County</b>	

## Project Location

The Santa Clara County Solid Waste Management Plan (CoSWMP) affects the entire county.

## Project Description

State law requires that counties review and update their CoSWMPs every three years. The 1989 Revision revises the 1984 CoSWMP in total. All of the required elements have been updated with current information on the County's waste stream. New waste management goals and policies have been added to manage wastes generated in Santa Clara County. The Plan sets forth implementation measures to attain the most efficient use of the existing disposal system and reduce negative impacts to the environment created by the disposal of solid waste in the County.

## Basis for Negative Declaration Recommendation

The Environmental Planning Section of the Department of Planning and Development has reviewed the initial study for the project and, based upon substantial evidence in the record, finds that the proposed project could not have a significant effect on the environment, or, although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case since the mitigation measures have been added to the project.

## Purpose of Notice

The purpose of this notice is to inform you that the Environmental Planning Section has recommended that a Negative Declaration be approved for this project. Final action will be taken on this proposed Negative Declaration by the County of Santa Clara

**Board of Supervisors**

\_\_\_\_\_  
final decisionmaker

Any interested person may submit comments concerning this Negative Declaration, and the basis for the determination of no significant impact on the environment, on or before the date of final action. Such comments should be based on specific environmental concerns. If the Negative Declaration is approved, the decision may be protested upon filing an appeal with the Current Planning Office. It should be noted that approval of a Negative Declaration does not constitute approval of the project under consideration. The decision to approve or deny the project will be made separately.

**Mitigation Measures included in the project to avoid potentially adverse environmental impacts**

An asterisk is placed beside those measures necessary to mitigate or avoid significant environmental effects. A reporting or monitoring program must be adopted for these measures at the time the Negative Declaration is approved according to the requirements of Section 21081.6 of the Public Resources Code.

Approval of the Solid Waste Management Plan goals, policies, and implementation measures will reduce negative impacts to the environment that might occur through the improper disposal of solid waste in the County.

**Responsible Agencies sent copy of this Negative Declaration including the Initial Study**

The fifteen municipalities of Santa Clara County: the Cities of Cambell, Cupertino, Gilroy, Los Altos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Palo Alto, San Jose, Santa Clara, Saratoga, Sunnyvale, and the Towns of Los Altos Hills, and Los Gatos. Also the State Clearinghouse and the California Waste Management Board, Local Planning Division.

**Review Period**

**From:** September 20, 1989

**To:** October 20, 1989

All comments regarding the correctness, completeness, or adequacy of this Negative Declaration must be received by the County of Santa Clara, Department of Planning and Development, Environmental Planning Section, County Administration Building, 70 W. Hedding Street, San Jose, CA 95110, Tel (408) 299-2521.

Action scheduled before the : Board of Supervisors

**On:** Not yet scheduled.

**Prepared by**

Sharon Lester / revised by Hugh Graham

**Approved by**

Hugh Graham

signature

date

signature

date



# Initial Study

## Discussion of Environmental Evaluation

*The factors discussed below may be potentially affected by this project. Potential impacts and possible mitigations, which would reduce or eliminate these impacts, are described. Environmental impacts that are clearly not involved are not discussed. The attached checklist gives a quick overview of the aspects of the environment evaluated.*

\*\*\*\*\*

### Background / Environmental Setting

---

State law requires counties to review and update their solid waste management plans every three years. Santa Clara County submitted a review report to the California Waste Management Board in August, 1988. The report concluded that all elements of the CoSWMP, as required by Title 14 of the Natural Resources Code, needed revision. In addition, three other elements were to be added to the 1989 revision:

- \* Household Hazardous Waste Program (Government Code Section 66780.5(b))
- \* Asbestos Disposal Program (Government Code Section 66780.5(e))
- \* 20% Recycling Goal and Provisions for Eight Years of Disposal Capacity (Government Code Section 66780.2)

### Overview of the 1989 Revision

**Chapter 1:** This chapter includes the Executive Summary. The Summary will be distributed as the annual report for 1988.

**Chapter 2:** This chapter contains the goals and policies of the Plan, the measures to achieve objectives, and the implementation schedule.

**Chapter 3:** This chapter contains general information about Santa Clara County and the history of solid waste management in Santa Clara County.

**Chapter 4:** Chapter 4 defines the storage and collection systems operating throughout Santa Clara County. Information includes listings of municipal storage ordinances, litter activities, and typical collection services.

**Chapter 5:** This chapter contains information on disposal arrangements, total remaining landfill capacity, existing solid waste facilities, and proposed solid waste facilities sites.

In this chapter, the Plan describes existing landfills and transfer stations with a locational map accompanying each landfill description. The remaining disposal capacity in the county is estimated to be 24 years, based on a 1.1% growth rate. If a 25% waste reduction is achieved by 1995, it is estimated there would be 32 years of disposal capacity.

**Chapter 6:** Chapter 6 is the resource recovery element of the CoSWMP. This chapter describes:

1. Efforts made to date to identify the recoverable components of the county's waste stream;
2. The 25% waste stream reduction goal adopted in 1988;
3. A methodology for measurement of progress toward the 25% reduction goal;
4. A listing of waste reduction activities presently occurring in Santa Clara County; and
5. A listing of planned new programs and program expansions in the area of resource recovery.



**Chapter 7:** Chapter 7 is a review of "other wastes" generated in Santa Clara County, which include:

1. Hazardous wastes (household hazardous wastes, asbestos, and infectious wastes);
2. Designated wastes;
3. Special wastes.

**Chapter 8:** This chapter addresses the coordination, management, and enforcement of local, federal, and state regulations regarding solid waste throughout Santa Clara County.

**Chapter 9:** This chapter delineates the local administrative structure, defines possible alternatives, and explains contingency planning and community education programs.

### **Land Use / General Plan**

The 1989 Revision of the CoSWMP is a reflection of current solid waste management practices in Santa Clara County outlining a future course of action for the management of solid waste throughout the county. The Plan examines the existing waste stream and capacity, and sets forth policies and implementation measures to attain the most efficient use of the existing disposal system.

The policies and implementation measures outlined in the Plan are intended in part to reduce negative impacts to the environment created by the disposal of solid waste generated in the county. None of the actions proposed as implementation measures will have significant negative environmental impacts.

Chapter 5 of the Plan contains proposed solid waste facility sites as required by Government Code 66780.2. This chapter includes three proposed solid waste facility sites: the Guadalupe Mines Landfill Facility Expansion, the Sunnyvale Materials Recovery and Transfer Station, and the Recyclery adjacent to the existing Newby Island Landfill.

Each of the proposed sites are at locations already designated within the respective jurisdiction's General Plan for Solid Waste Facilities. Environmental issues associated with individual facilities at these proposed sites have already been examined or are currently being examined as part of each facility's approval process.

#### **Guadalupe Expansion**

The City of San Jose determined that the expansion of the existing Guadalupe Mines Landfill was consistent with their General Plan and certified the EIR completed for the project in November 1988.

#### **Transfer Station**

The proposed Sunnyvale Transfer Station will be located at the existing city landfill site adjacent to the Sunnyvale Water Pollution Control Plant. The transfer station site is a designated Solid Waste Facility in Sunnyvale's General Plan and is currently zoned P-F (Public Facilities) which includes transfer stations as an allowed use. The CEQA determination for the General Plan designation was completed by Sunnyvale. The environmental impacts of locating the proposed transfer station at the site are being evaluated in an EIR which is presently underway. The EIR is anticipated to be completed in the Fall of 1989.

#### **Recyclery**

In August 1988, an amendment to the CoSWMP to include this waste processing facility adjacent to the Newby Island Landfill received final approval from the CWMB. The site was found to be in conformance with San Jose's General Plan, and a negative declaration was adopted for the project. The Recyclery is currently going through the permitting process with the City of San Jose, the LEA for the site.

### **Conclusion**

In conclusion, neither the policies, the implementation measures, nor the proposed facility sites outlined in the Plan will have a significant impact on the environment. Since the environmental impact of the Plan is determined to be insignificant, a Negative Declaration is proposed.

WILL THE PROJECT:	IMPACT					SOURCES
	NO	YES				
		Not Signifi- cant	Signifi- cant, Unless Mitl- gated	Signifi- cant. No ap- parent Mitlga- tion	Cumu- lative	
A. LAND USE / GENERAL PLAN						
1. Require a change from the land use designated in the General Plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6,10a
2. Involve a change of zoning?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7,9a
3. Require a change from adopted specific plans or community goals?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6,7,10a
4. Be in an area with special policies or of critical concern?						
a. San Martin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6,10a
b. Los Gatos/Lexington or Guadalupe Watershed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6,10a,13,14
c. East Foothills	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6,10a
d. New Almaden Historical Area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6,7,10a
e. Stanford	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6,15,16
f. San Jose	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8,10a
5. Result in any substantial changes in the present land use, either on or off the project site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,3,12b
6. Disrupt or divide the physical arrangement of an established community?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,4
7. Conflict with established recreational, educational, religious or scientific uses in the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,4
B. GEOLOGIC						
1. Be located in an area designated as having a potential for major geological hazard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9b,10c,11a,12a,17,18
2. Be located on, or adjacent to a known earthquake fault?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9c,10c,11a
3. Be located in a Geologic Study Zone?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9c,11a
4. Be located in an area of soil instability (subsidence, landslide, shrink/swell potential, soil creep or severe erosion)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9c,12a,12d,20,21
5. Cause substantial erosion or siltation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,3
6. Cause substantial disruption, displacement, compaction or over-covering of soil either on-site or off-site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,3
7. Cause substantial change in topography or in a ground surface relief feature?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,3,11c
8. Involve construction of a building, road or septic system on a slope of:						
a. 30% or greater?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,10j,11c
b. 20% to 30%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,10j,11c
c. 10% to 20%?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,10j,11c
C. RESOURCES / PARKS						
1. Increase the removal rate or result in the removal of a natural resource for <u>commercial</u> purposes (including rock, sand, gravel, oil, trees, minerals or top soil)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,3,19



WILL THE PROJECT:	IMPACT					SOURCES
	NO	YES				
		Not Signifi- cant	Signifi- cant Unless Mitig- ated	Signifi- cant. No ap- parent Mitiga- tion	Cumu- lative	
2. Result in substantial depletion of any non-renewable natural resource?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3
3. Convert 10 or more acres of prime agricultural land (Class I to II) to non-agricultural use or impair the agricultural productivity of nearby prime agricultural land?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,20,21
4. Involve lands currently protected under the Williamson Act (agricultural preserve) or an Open Space Easement?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,9a
5. Substantially affect any existing agricultural uses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2
6. Be on, within, or near public or private park, wildlife reserve, trail or scenic highway designations (including those proposed for the future)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,9d,10h
D. SEWAGE / WATER QUALITY						
1. Result in a septic field being constructed on soil with severe septic drainfield limitations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12d,20,21,22
2. Result in a septic field being located within 50 feet of a drainage swale; 100 feet of any well, water course or water body or 200 feet of the high water mark of a reservoir?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,3,4
3. Result in a septic field being located in an area where a high water table extends close to the natural land surface?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10e,11b,20,21,24
4. Result in extensions of a sewer trunk line with capacity to serve new development?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
5. Substantially degrade surface or ground water quality or public water supply?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,11b,21
6. Be located in an area of special water quality concern (e.g., Los Gatos or Guadalupe Watershed)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4,10a,13,23
7. Result in use of well water previously contaminated by nitrates, mercury, asbestos, etc. existing in the groundwater supply?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10e,23
E. DRAINAGE / FLOODING						
1. Interfere substantially with ground water recharge?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3,10e,11b
2. Substantially change the direction, rate of flow or quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3
3. Change absorption rates, drainage patterns, or the rate and amount of surface runoff?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3,28
4. Involve a natural drainage channel or streambed or water course such as to alter the location, course, or flow of its waters?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,11c,28
5. Be located within a floodway or floodplain area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9c,12c



WILL THE PROJECT:	IMPACT					SOURCES
	NO	YES				
		Not Signifi- cant	Signifi- cant Unless Mitl- gated	Signifi- cant. No ap- parent Mitlga- tion	Cumu- lative	
F. FLORA AND FAUNA						
1. Significantly affect fish, wildlife, reptiles, or plant life, by change in diversity or numbers or introduction of new species or restrictions to migration or movement?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,4,10b,11d,e
2. Substantially reduce habitat for fish, animals or plants?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3,10b,11d,e 38,39,40
3. Affect or cause changes to existing habitat, food source, nesting place, breeding place for a rare or endangered plant or animal species?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10b,11d,e
4. Involve a unique biological area, such as a fresh water marsh or salt water tide land?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,3,10b,11d,e
5. Involve construction within 150 feet of a watercourse or riparian area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3,12b
6. Involve cutting of unique or heritage trees or a large number of trees over 12" in diameter?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,2,3,25
G. TRANSPORTATION						
1. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system? (Exceed LOS level 'D' in vicinity-GP policy G8.3.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4,6,26,27,28, 29,44
2. Increase traffic hazards to pedestrians, bicyclists and vehicles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3,4
3. Obstruct access to nearby uses or fail to provide for future street right of way?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3,12e
4. Cause increases in demand for existing on or off-street parking because of inadequate project parking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,30
H. HOUSING						
1. Reduce the supply of low-income housing or displace people or businesses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3,4
2. Affect the type or cost of housing in the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3,4
3. Create a demand for additional housing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
I. SAFETY / HEALTH						
1. Involve the application, use or disposal of potentially hazardous materials, including pesticides, herbicides, toxic substances, or radioactive materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,4,5
2. Involve risk of explosion or release of hazardous substances?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,4,5
3. Create any health hazard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,4,5
4. Be located in an ALUC Safety Zone?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31
5. Be located in an area of extreme fire hazard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10g

WILL THE PROJECT:	IMPACT					SOURCES
	NO	YES				
		Not Signifi- cant	Signifi- cant Unless Mitl- gated	Signifi- cant. No ap- parent Mitlga- tion	Cumu- lative	
6. In the case of cul-de-sacs over 800 ft. in length, require secondary access which will be difficult to obtain?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,4,32,33
7. Employ technology which could adversely affect safety in case of a breakdown?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
8. Proposed site plan result in a safety hazard (i.e., parking layout, access, closed community, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3
9. Provide breeding grounds for vectors?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
J. AIR QUALITY						
1. Violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5,34
2. Create objectionable odors?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
K. NOISE						
1. Increase substantially the ambient noise levels for adjoining areas during and/or after construction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5,6
2. Generate unusually high noise or vibration levels at certain times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
3. Be subject to an unusually high noise level?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,4
4. Be located in an ALUC noise zone?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31
L. AESTHETIC						
1. If subject to ASA, be generally in non-compliance with Guidelines for Architecture and Site Approval?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35,36
2. Create an aesthetically offensive site open to public view?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3,37
3. Visually intrude into an area having natural scenic qualities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3,4,37
4. Be adjacent to a designated Scenic Highway or within a Scenic Corridor?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7,10f,37
5. Obstruct scenic views from existing residential areas, public lands, public water body or roads?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3
6. Be located on or near a ridgeline visible from the valley floor?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,10f,11c,37
7. Adversely affect the architectural appearance of an established neighborhood?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3
8. Generate new light or glare?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3
M. ENERGY						
1. Use fuel, water or energy in large quantities or in a wasteful manner?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5

WILL THE PROJECT:	IMPACT					SOURCES
	NO	YES				
		Not Signifi- cant	Signifi- cant Unless Mitli- gated	Signifi- cant. No ap- parent Mitiga- tion	Cumu- lative	
2. Involve the removal of vegetation capable of providing summer shade to a building?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3
3. Significantly affect solar access to adjacent property?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2,3
N. HISTORICAL / ARCHAEOLOGICAL						
1. Be located in an area of potential archaeological or paleontological resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10d,42
2. Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as a part of a scientific study?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3,10d,10i,41,42,43
3. Be located in a Historic District (e.g., New Almaden Historic Area)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7,10a
4. Be within 500' of a historic landmark?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10i,43
O. PUBLIC SERVICES AND UTILITIES						
1. Produce significant amounts of solid waste or litter?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
2. Induce substantial growth or concentration of population? (Growth inducing?)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
3. Employ equipment which could interfere with existing communications or broadcast systems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
4. Cause substantial impact or increase in the need for:						
a. Fire Protection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
b. Police Protection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
5. Cause substantial impact or increase in the need for:						
a. School facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
b. Parks or recreation facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
c. Maintenance of public facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
d. Other government services	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
6. Cause substantial impact or increase in the need for:						
a. Electricity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
b. Natural gas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
c. Water	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
d. Sewage disposal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
e. Storm water runoff	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,5
7. Generate any demands that create the need for or cause a public facility or utility to approach, reach or exceed its capacity (i.e., sewer line, sewage plant, street, etc.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1,3,4,5





## INITIAL STUDY SOURCE LIST\*

1. Environmental Information Form
2. Field Inspection
3. Project Plans
4. Planner's Knowledge of Area
5. Experience With Other Project of This Size and Nature
6. County General Plan
7. **County Zoning Regulations** (Ordinance)
8. Second Amendment to Agreement [with San Jose] for Allocation of Tax Increment Funds
9. MAPS (various scales)
  - a. **County Zoning** (500' or 1,000')
  - b. ABAG "On Shaky Ground" - Santa Clara County Map Set (2 miles)
  - c. **Barclay's Santa Clara County Locaide Street Atlas** (2631')
  - d. **County Regional Parks, Trails and Scenic High ways Map** (10,000')
10. 5000' or one mile Scale MAPS
  - a. **County General Plan Land Use**
  - b. **Natural Habitat Areas**
  - c. **Relative Seismic Stability**
  - d. **Archaeological Resources**
  - e. **Water Resources & Water Problems**
  - f. **Viewshed and Scenic Roads**
  - g. **Fire Hazard**
  - h. **Parks and Public Open Space**
  - i. **Heritage Resources** [Key found in: Historic Resources Map Key--computerized list accompanying map]
  - j. **Slope Constraint**
11. 2000' Scale MAPS
  - a. State of California, Special Studies Zones [Revised Official Map]
  - b. Water Problem/Resource
  - c. USGS Topo Quad (7 1/2 minutes)
  - d. **Dept. of Fish & Game, Natural Diversity Data Base Map Overlays & Textual Reports**
  - e. **Natural Resources** [Key to map found in: Natural Resource Sensitivity Areas - Locality Data, Harvey & Stanley Associates--- Contact County staff]
12. 1000' Scale MAPS / Air Photos
  - a. **Geologic Hazards**
  - b. **Color Air Photos (MPSI)**
  - c. **Santa Clara Valley Water District - Maps of Flood Control Facilities & Limits of 1% Flooding**
  - d. **Soils Overlay Air Photos**
  - e. **"Future Width Line" map set**
13. **County Lexington Basin Ordinance Relating to Sewage Disposal**
14. **Los Gatos Hillsides Specific Area Plan**
15. **Stanford University Master Use Permit and Environmental Impact Report [EIR]**
16. **Stanford Protocol and Land Use Policy Agreement**
17. **County Geologist**
18. **Site Specific Geologic Report**
19. State Department of Mines and Geology, Special Report #146
20. **USDA, SCS, "Soils of Santa Clara County"**
21. **USDA, SCS, "Soil Survey of Eastern Santa Clara County"**
22. **County Environmental Health / Septic Tank Sewage Disposal System - Bulletin "A"**
23. **San Martin Water Quality Study**
24. **County Environmental Health Department Tests and Reports**
25. **County Heritage Trees Inventory**
26. **Official County Road Book**
27. **County Transportation Agency**
28. **County Standards and Policies Manual (Vol. I - Land Development)**
29. **Public Works Departments of Individual Cities**
30. **County Off-street Parking Standards**
31. **ALUC Land Use Plan for Areas Surrounding Airports**
32. **County Fire Marshal**
33. **California Department of Forestry**
34. **BAAQMD Annual Summary of Contaminant Excesses & BAAQMD, "Air Quality & Urban Development - Guidelines for Assessing Impacts of Projects & Plans"**
35. **Architectural and Site Approval Committee Secretary**
36. **County Guidelines for Architecture and Site Approval**
37. **County Development Guidelines for Design Review**
38. **"Practical Landscaping"** (County) Guidelines to Designing a Landscape Plan Using Native & Naturalized Plants
39. **Plants for California Landscapes, California Department of Water Resources**
40. **EBMUD, Water Conserving Plants and Landscapes for the Bay Area**
41. **Site Specific Archaeological Reconnaissance Report**
42. **State Archaeological Clearinghouse, Sonoma State University**
43. **Santa Clara County Heritage Resource Inventory**
44. **Transportation Research Board, "Highway Capacity Manual", Special Report 209, 1985.**

\*Items listed in **bold** are the most important sources and should be referred to during the first review of the project, when they are available. The planner should refer to the other sources for a particular environmental factor if the former indicate a potential environmental impact.











U.C. BERKELEY LIBRARIES



C124911340



